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* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 10:42:16 ON 24 OCT 2008

=> fil .bec
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.63       0.63

FILES 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS,
       ESBIOBASE, BIOTECHNO, WPIDS' ENTERED AT 10:43:55 ON 24 OCT 2008
ALL COPYRIGHTS AND RESTRICTIONS APPLY.  SEE HELP USAGETERMS FOR DETAILS.

11 FILES IN THE FILE LIST

=> s (chimeric or fusion# or conjugate#)(3a)(protein# or peptide# or polypeptide#)
FILE 'MEDLINE'
         24384 CHIMERIC
        165487 FUSION#
         75500 CONJUGATE#
       2317050 PROTEIN#
        467184 PEPTIDE#
         95449 POLYPEPTIDE#
L1       99518 (CHIMERIC OR FUSION# OR CONJUGATE#)(3A)(PROTEIN# OR PEPTIDE# OR
               POLYPEPTIDE#)

FILE 'SCISEARCH'
         25843 CHIMERIC
        154581 FUSION#
        118642 CONJUGATE#
       1836013 PROTEIN#
        354280 PEPTIDE#
         87801 POLYPEPTIDE#
L2       45889 (CHIMERIC OR FUSION# OR CONJUGATE#)(3A)(PROTEIN# OR PEPTIDE# OR
               POLYPEPTIDE#)

FILE 'LIFESCI'
         14092 CHIMERIC
         50462 FUSION#
         21672 CONJUGATE#
        724325 PROTEIN#
        121910 PEPTIDE#
         43961 POLYPEPTIDE#
L3       25980 (CHIMERIC OR FUSION# OR CONJUGATE#)(3A)(PROTEIN# OR PEPTIDE# OR
               POLYPEPTIDE#)

FILE 'BIOTECHDS'
         13763 CHIMERIC
         28864 FUSION#
          9223 CONJUGATE#
        183636 PROTEIN#
         43825 PEPTIDE#
         37149 POLYPEPTIDE#
L4       21769 (CHIMERIC OR FUSION# OR CONJUGATE#)(3A)(PROTEIN# OR PEPTIDE# OR
               POLYPEPTIDE#)

FILE 'BIOSIS'
         29912 CHIMERIC
        122463 FUSION#
         85811 CONJUGATE#
       2165157 PROTEIN#
        388820 PEPTIDE#
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        117987 POLYPEPTIDE#
L5       54118 (CHIMERIC OR FUSION# OR CONJUGATE#)(3A)(PROTEIN# OR PEPTIDE# OR
               POLYPEPTIDE#)

FILE 'EMBASE'
         22705 CHIMERIC
         97843 FUSION#
         73460 CONJUGATE#
       1902727 PROTEIN#
        295326 PEPTIDE#
         91973 POLYPEPTIDE#
L6       40425 (CHIMERIC OR FUSION# OR CONJUGATE#)(3A)(PROTEIN# OR PEPTIDE# OR
               POLYPEPTIDE#)

FILE 'HCAPLUS'
         61319 CHIMERIC
        299184 FUSION#
        217090 CONJUGATE#
       2594290 PROTEIN#
        516231 PEPTIDE#
        149932 POLYPEPTIDE#
L7       91649 (CHIMERIC OR FUSION# OR CONJUGATE#)(3A)(PROTEIN# OR PEPTIDE# OR
               POLYPEPTIDE#)

FILE 'NTIS'
           245 CHIMERIC
         23535 FUSION#
          4187 CONJUGATE#
         21034 PROTEIN#
          4694 PEPTIDE#
          1280 POLYPEPTIDE#
L8          623 (CHIMERIC OR FUSION# OR CONJUGATE#)(3A)(PROTEIN# OR PEPTIDE# OR
               POLYPEPTIDE#)

FILE 'ESBIOBASE'
         15719 CHIMERIC
         52836 FUSION#
         27731 CONJUGATE#
        911132 PROTEIN#
        147610 PEPTIDE#
         34531 POLYPEPTIDE#
L9       29915 (CHIMERIC OR FUSION# OR CONJUGATE#)(3A)(PROTEIN# OR PEPTIDE# OR
               POLYPEPTIDE#)

FILE 'BIOTECHNO'
         14142 CHIMERIC
         44936 FUSION#
         18653 CONJUGATE#
        653195 PROTEIN#
        106881 PEPTIDE#
         43740 POLYPEPTIDE#
L10      25815 (CHIMERIC OR FUSION# OR CONJUGATE#)(3A)(PROTEIN# OR PEPTIDE# OR
               POLYPEPTIDE#)

FILE 'WPIDS'
         12247 CHIMERIC
         60084 FUSION#
         56760 CONJUGATE#
        203021 PROTEIN#
         73623 PEPTIDE#
         60172 POLYPEPTIDE#
L11      19964 (CHIMERIC OR FUSION# OR CONJUGATE#)(3A)(PROTEIN# OR PEPTIDE# OR
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              POLYPEPTIDE#)

TOTAL FOR ALL FILES
L12     455665 (CHIMERIC OR FUSION# OR CONJUGATE#)(3A)(PROTEIN# OR PEPTIDE# OR
              POLYPEPTIDE#)

=> s chondroitinase# or chondroitin(w)(lyase# or exolyase# or eliminase# or
exoeliminase#)
FILE 'MEDLINE'
          2111 CHONDROITINASE#
         13031 CHONDROITIN
         35135 LYASE#
             1 EXOLYASE#
            56 ELIMINASE#
             1 EXOELIMINASE#
           831 CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINASE# OR EXOELIMINASE
               #)
L13        2306 CHONDROITINASE# OR CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINA
               SE# OR EXOELIMINASE#)

FILE 'SCISEARCH'
          1252 CHONDROITINASE#
          9110 CHONDROITIN
         13502 LYASE#
             1 EXOLYASE#
            67 ELIMINASE#
             1 EXOELIMINASE#
            37 CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINASE# OR EXOELIMINASE
               #)
L14        1277 CHONDROITINASE# OR CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINA
               SE# OR EXOELIMINASE#)

FILE 'LIFESCI'
           402 CHONDROITINASE#
          2238 CHONDROITIN
          5328 LYASE#
             1 EXOLYASE#
            34 ELIMINASE#
             1 EXOELIMINASE#
            18 CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINASE# OR EXOELIMINASE
               #)
L15         414 CHONDROITINASE# OR CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINA
               SE# OR EXOELIMINASE#)

FILE 'BIOTECHDS'
            90 CHONDROITINASE#
           401 CHONDROITIN
          2557 LYASE#
             1 EXOLYASE#
            15 ELIMINASE#
             0 EXOELIMINASE#
             6 CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINASE# OR EXOELIMINASE
               #)
L16          94 CHONDROITINASE# OR CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINA
               SE# OR EXOELIMINASE#)

FILE 'BIOSIS'
          2258 CHONDROITINASE#
         12600 CHONDROITIN
         16320 LYASE#
             2 EXOLYASE#
           292 ELIMINASE#
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             1 EXOELIMINASE#
            56 CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINASE# OR EXOELIMINASE
               #)
L17       2298 CHONDROITINASE# OR CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINA
               SE# OR EXOELIMINASE#)

FILE 'EMBASE'
          1708 CHONDROITINASE#
         10742 CHONDROITIN
         11104 LYASE#
             1 EXOLYASE#
            45 ELIMINASE#
             1 EXOELIMINASE#
            38 CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINASE# OR EXOELIMINASE
               #)
L18       1737 CHONDROITINASE# OR CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINA
               SE# OR EXOELIMINASE#)

FILE 'HCAPLUS'
          2224 CHONDROITINASE#
         17049 CHONDROITIN
         19938 LYASE#
             1 EXOLYASE#
           182 ELIMINASE#
             1 EXOELIMINASE#
            66 CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINASE# OR EXOELIMINASE
               #)
L19       2268 CHONDROITINASE# OR CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINA
               SE# OR EXOELIMINASE#)

FILE 'NTIS'
             4 CHONDROITINASE#
            46 CHONDROITIN
           199 LYASE#
             0 EXOLYASE#
             1 ELIMINASE#
             0 EXOELIMINASE#
             1 CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINASE# OR EXOELIMINASE
               #)
L20          5 CHONDROITINASE# OR CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINA
               SE# OR EXOELIMINASE#)

FILE 'ESBIOBASE'
           604 CHONDROITINASE#
          3161 CHONDROITIN
          7664 LYASE#
             1 EXOLYASE#
            22 ELIMINASE#
             1 EXOELIMINASE#
            22 CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINASE# OR EXOELIMINASE
               #)
L21        617 CHONDROITINASE# OR CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINA
               SE# OR EXOELIMINASE#)

FILE 'BIOTECHNO'
           541 CHONDROITINASE#
          2609 CHONDROITIN
          4675 LYASE#
             1 EXOLYASE#
            24 ELIMINASE#
             1 EXOELIMINASE#
            25 CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINASE# OR EXOELIMINASE
```

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                #)
L22          561 CHONDROITINASE# OR CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINA
                SE# OR EXOELIMINASE#)

FILE 'WPIDS'
             195 CHONDROITINASE#
            3149 CHONDROITIN
            1673 LYASE#
               1 EXOLYASE#
              14 ELIMINASE#
               0 EXOELIMINASE#
               3 CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINASE# OR EXOELIMINASE
                #)
L23          195 CHONDROITINASE# OR CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINA
                SE# OR EXOELIMINASE#)

TOTAL FOR ALL FILES
L24        11772 CHONDROITINASE# OR CHONDROITIN(W)(LYASE# OR EXOLYASE# OR ELIMINA
                SE# OR EXOELIMINASE#)

=> s l12(15a)l24
FILE 'MEDLINE'
L25            0 L1 (15A)L13

FILE 'SCISEARCH'
L26            0 L2 (15A)L14

FILE 'LIFESCI'
L27            0 L3 (15A)L15

FILE 'BIOTECHDS'
L28            3 L4 (15A)L16

FILE 'BIOSIS'
L29            0 L5 (15A)L17

FILE 'EMBASE'
L30            0 L6 (15A)L18

FILE 'HCAPLUS'
L31            2 L7 (15A)L19

FILE 'NTIS'
L32            0 L8 (15A)L20

FILE 'ESBIOBASE'
L33            0 L9 (15A)L21

FILE 'BIOTECHNO'
L34            0 L10(15A)L22

FILE 'WPIDS'
L35            1 L11(15A)L23

TOTAL FOR ALL FILES
L36            6 L12(15A) L24

=> s l12 and l24
FILE 'MEDLINE'
L37           29 L1 AND L13

FILE 'SCISEARCH'
```

```
L38         14 L2 AND L14

FILE 'LIFESCI'
L39         13 L3 AND L15

FILE 'BIOTECHDS'
L40          3 L4 AND L16

FILE 'BIOSIS'
L41         19 L5 AND L17

FILE 'EMBASE'
L42         17 L6 AND L18

FILE 'HCAPLUS'
L43         25 L7 AND L19

FILE 'NTIS'
L44          0 L8 AND L20

FILE 'ESBIOBASE'
L45         12 L9 AND L21

FILE 'BIOTECHNO'
L46         10 L10 AND L22

FILE 'WPIDS'
L47          4 L11 AND L23

TOTAL FOR ALL FILES
L48        146 L12 AND L24

=> s l48 not 2004-2008/py
FILE 'MEDLINE'
       3164820 2004-2008/PY
                 (20040000-20089999/PY)
L49         18 L37 NOT 2004-2008/PY

FILE 'SCISEARCH'
       5928866 2004-2008/PY
                 (20040000-20089999/PY)
L50          8 L38 NOT 2004-2008/PY

FILE 'LIFESCI'
        754837 2004-2008/PY
L51          6 L39 NOT 2004-2008/PY

FILE 'BIOTECHDS'
        117217 2004-2008/PY
L52          2 L40 NOT 2004-2008/PY

FILE 'BIOSIS'
       2726031 2004-2008/PY
L53         13 L41 NOT 2004-2008/PY

FILE 'EMBASE'
       2737448 2004-2008/PY
L54         11 L42 NOT 2004-2008/PY

FILE 'HCAPLUS'
       6404667 2004-2008/PY
L55         14 L43 NOT 2004-2008/PY
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FILE 'NTIS'
         78657 2004-2008/PY
L56          0 L44 NOT 2004-2008/PY

FILE 'ESBIOBASE'
       1562411 2004-2008/PY
L57          6 L45 NOT 2004-2008/PY

FILE 'BIOTECHNO'
           586 2004-2008/PY
L58         10 L46 NOT 2004-2008/PY

FILE 'WPIDS'
       5452995 2004-2008/PY
L59          2 L47 NOT 2004-2008/PY

TOTAL FOR ALL FILES
L60         90 L48 NOT 2004-2008/PY

=> dup rem l60
PROCESSING COMPLETED FOR L60
L61          29 DUP REM L60 (61 DUPLICATES REMOVED)

=> d tot

L61  ANSWER 1 OF 29  HCAPLUS  COPYRIGHT 2008 ACS on STN
TI   Novel human chondroitin sulfate glucuronyltransferase that transfers
     glucuronic acid to N-acetylgalactosamine, cDNA cloning, and use in sugar
     synthesis
SO   PCT Int. Appl., 55 pp.
     CODEN: PIXXD2
IN   Narimatsu, Hisashi; Kimata, Koji; Goto, Masanori; Yada, Toshikazu
AN   2003:697057  HCAPLUS
DN   139:226464
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    -------------------    --------
PI   WO 2003072773        A1    20030904    WO 2003-JP1331         20030207
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
             LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL,
             PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
             UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2003227179        A1    20030909    AU 2003-227179         20030207
     JP 2003299488        A     20031021    JP 2003-30398          20030207

L61  ANSWER 2 OF 29  BIOSIS  COPYRIGHT (c) 2008 The Thomson Corporation  on STN
TI   Efficient expression and purification of biologically active recombinant
     CHO ndroitinase ABCI.
SO   Society for Neuroscience Abstract Viewer and Itinerary Planner, (2003)
     Vol. 2003, pp. Abstract No. 745.9. http://sfn.scholarone.com. e-file.
     Meeting Info.: 33rd Annual Meeting of the Society of Neuroscience. New
     Orleans, LA, USA. November 08-12, 2003. Society of Neuroscience.
AU   Sheptovitsky, Y. G. [Reprint Author]; Roy, G. [Reprint Author]; D'Souza,
     R. [Reprint Author]; Kasperbauer, S. J. [Reprint Author]; Vecchione, A. M.
     [Reprint Author]; Tseng, J. L. [Reprint Author]; Iaci, J. F. [Reprint
     Author]; Caggiano, A. O. [Reprint Author]; Chojnicki, E. W. T. [Reprint
```

Author]; Gruskin, E. A. [Reprint Author]
AN 2004:204167 BIOSIS

L61 ANSWER 3 OF 29 MEDLINE on STN
TI Molecular cloning and characterization of a novel chondroitin sulfate glucuronyltransferase that transfers glucuronic acid to N-acetylgalactosamine.
SO The Journal of biological chemistry, (2002 Oct 11) Vol. 277, No. 41, pp. 38179-88. Electronic Publication: 2002-07-26.
Journal code: 2985121R. ISSN: 0021-9258.
AU Gotoh Masanori; Yada Toshikazu; Sato Takashi; Akashima Tomohiro; Iwasaki Hiroko; Mochizuki Hideo; Inaba Niro; Togayachi Akira; Kudo Takashi; Watanabe Hideto; Kimata Koji; Narimatsu Hisashi
AN 2002620027 MEDLINE

L61 ANSWER 4 OF 29 MEDLINE on STN DUPLICATE 1
TI Identification and characterization of L-selectin ligands in porcine lymphoid tissues.
SO Immunology, (2002 Apr) Vol. 105, No. 4, pp. 441-9.
Journal code: 0374672. ISSN: 0019-2805.
AU Khan Adil I; Haskard Dorian O; Malhotra Rajneesh; Landis R Clive
AN 2002246482 MEDLINE

L61 ANSWER 5 OF 29 MEDLINE on STN
TI CD44 binds a chondroitin sulfate proteoglycan, aggrecan.
SO International immunology, (2001 Mar) Vol. 13, No. 3, pp. 359-66.
Journal code: 8916182. ISSN: 0953-8178.
AU Fujimoto T; Kawashima H; Tanaka T; Hirose M; Toyama-Sorimachi N; Matsuzawa Y; Miyasaka M
AN 2001322788 MEDLINE

L61 ANSWER 6 OF 29 MEDLINE on STN DUPLICATE 2
TI The fusion glycoprotein of human respiratory syncytial virus facilitates virus attachment and infectivity via an interaction with cellular heparan sulfate.
SO Journal of virology, (2000 Jul) Vol. 74, No. 14, pp. 6442-7.
Journal code: 0113724. ISSN: 0022-538X.
AU Feldman S A; Audet S; Beeler J A
AN 2000405798 MEDLINE

L61 ANSWER 7 OF 29 MEDLINE on STN DUPLICATE 3
TI Molecular characterization of a novel basement membrane-associated proteoglycan, leprecan.
SO The Journal of biological chemistry, (1999 Aug 27) Vol. 274, No. 35, pp. 25004-17.
Journal code: 2985121R. ISSN: 0021-9258.
AU Wassenhove-McCarthy D J; McCarthy K J
AN 1999386987 MEDLINE

L61 ANSWER 8 OF 29 WPIDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI Treating heterogeneous population of cancer cells - with soluble radioactive agent retained near cells by extracellular matrix released from cells killed by prior agent, used for, e.g. minimising effects on normal cells
PI WO 9830247 A1 19980716 (199834)* EN 160[51]
RW: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AU CA JP KR NO NZ
AU 9859131 A 19980803 (199850) EN
US 6080383 A 20000627 (200036) EN
EP 1047456 A1 20001102 (200056) EN
R: CH DE FR GB IT LI NL SE
JP 2001524941 W 20011204 (200203) JA 120

US 20020022003 A1 20020221 (200221) EN
US 6468503 B2 20021022 (200273) EN
US 20030068382 A1 20030410 (200327)# EN
IN ROSE S

L61 ANSWER 9 OF 29 MEDLINE on STN
TI Heparin interferes with translocation of Yop proteins into HeLa cells and binds to LcrG, a regulatory component of the Yersinia Yop apparatus.
SO Molecular microbiology, (1998 Jan) Vol. 27, No. 2, pp. 425-36.
Journal code: 8712028. ISSN: 0950-382X.
AU Boyd A P; Sory M P; Iriarte M; Cornelis G R
AN 1998143428 MEDLINE

L61 ANSWER 10 OF 29 HCAPLUS COPYRIGHT 2008 ACS on STN
TI The glycosylation sites and structural characteristics of oligosaccharides on recombinant human thrombomodulin
SO International Journal of Biochemistry & Cell Biology (1998), 30(1), 77-88
CODEN: IJBBFU; ISSN: 1357-2725
AU Edano, Toshiyuki; Kumai, Natuyo; Mizoguchi, Toshimi; Ohkuchi, Masao
AN 1998:290805 HCAPLUS
DN 129:51085
OREF 129:10575a,10578a

L61 ANSWER 11 OF 29 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Role of the extracellular domain of human herpesvirus 7 glycoprotein B in virus binding to cell surface heparan sulfate proteoglycans
SO Journal of Virology (1997), 71(6), 4571-4580
CODEN: JOVIAM; ISSN: 0022-538X
AU Secchiero, Paola; Sun, Daisy; De Vico, Anthony L.; Crowley, Richard W.; Reitz, Marvin S., Jr.; Zauli, Giorgio; Lusso, Paolo; Gallo, Robert C.
AN 1997:325488 HCAPLUS
DN 127:48628
OREF 127:9247a,9250a

L61 ANSWER 12 OF 29 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI Attenuation of wound healing processes;
recombinant heparin-lyase, chondroitinase, chondroitin-sulfate-degrading enzyme and chondroitin-degrading enzyme fusion protein for use as a vulnerary or in restenosis therapy
AU Zimmermann J
AN 1996-03820 BIOTECHDS
PI WO 9601648 25 Jan 1996

L61 ANSWER 13 OF 29 MEDLINE on STN DUPLICATE 4
TI A recombinant Chlamydia trachomatis major outer membrane protein binds to heparan sulfate receptors on epithelial cells.
SO Proceedings of the National Academy of Sciences of the United States of America, (1996 Oct 1) Vol. 93, No. 20, pp. 11143-8.
Journal code: 7505876. ISSN: 0027-8424.
AU Su H; Raymond L; Rockey D D; Fischer E; Hackstadt T; Caldwell H D
AN 1997008147 MEDLINE

L61 ANSWER 14 OF 29 MEDLINE on STN DUPLICATE 5
TI Heparin-binding domain, type 1 and type 2 repeats of thrombospondin mediate its interaction with human breast cancer cells.
SO Journal of cellular biochemistry, (1996 Sep 15) Vol. 62, No. 4, pp. 431-42.
Journal code: 8205768. ISSN: 0730-2312.
AU Incardona F; Lawler J; Cataldo D; Panet A; Legrand Y; Foidart J M; Legrand C
AN 1997046968 MEDLINE

L61 ANSWER 15 OF 29 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Partial cDNA cloning and characterization of a chondroitin sulfate proteoglycan present in mesangial matrix.
SO Molecular Biology of the Cell, (1996) Vol. 7, No. SUPPL., pp. 54A. Meeting Info.: Annual Meeting of the 6th International Congress on Cell Biology and the 36th American Society for Cell Biology. San Francisco, California, USA. December 7-11, 1996.
CODEN: MBCEEV. ISSN: 1059-1524.
AU McCarthy, Deborah; McCarthy, Kevin
AN 1997:94624 BIOSIS

L61 ANSWER 16 OF 29 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI Connective tissue repair or growth stimulation; chondroitin-ABC-lyase and chondroitinase fusion protein production
AU Berlowitz-Tarrant L; Ratcliffe A; Mizuno S
AN 1995-10108 BIOTECHDS
PI WO 9513091 18 May 1995

L61 ANSWER 17 OF 29 MEDLINE on STN DUPLICATE 7
TI Brevican, a chondroitin sulfate proteoglycan of rat brain, occurs as secreted and cell surface glycosylphosphatidylinositol-anchored isoforms.
SO The Journal of biological chemistry, (1995 Nov 10) Vol. 270, No. 45, pp. 27206-12.
Journal code: 2985121R. ISSN: 0021-9258.
AU Seidenbecher C I; Richter K; Rauch U; Fassler R; Garner C C; Gundelfinger E D
AN 1996070828 MEDLINE

L61 ANSWER 18 OF 29 MEDLINE on STN
TI Identification and characterization of a Bacteroides gene, csuF, which encodes an outer membrane protein that is essential for growth on chondroitin sulfate.
SO Journal of bacteriology, (1995 Jul) Vol. 177, No. 13, pp. 3721-7.
Journal code: 2985120R. ISSN: 0021-9193.
AU Cheng Q; Yu M C; Reeves A R; Salyers A A
AN 1995325312 MEDLINE

L61 ANSWER 19 OF 29 MEDLINE on STN
TI Regulation of growth and dissemination of a human lymphoma by CD44 splice variants.
SO Journal of cell science, (1995 Apr) Vol. 108 (Pt 4), pp. 1723-33.
Journal code: 0052457. ISSN: 0021-9533.
AU Bartolazzi A; Jackson D; Bennett K; Aruffo A; Dickinson R; Shields J; Whittle N; Stamenkovic I
AN 1995340700 MEDLINE

L61 ANSWER 20 OF 29 MEDLINE on STN DUPLICATE 8
TI Up-regulation of a chondroitin sulphate epitope during regeneration of mouse sciatic nerve: evidence that the immunoreactive molecules are related to the chondroitin sulphate proteoglycans decorin and versican.
SO The European journal of neuroscience, (1995 Apr 1) Vol. 7, No. 4, pp. 792-804.
Journal code: 8918110. ISSN: 0953-816X.
AU Braunewell K H; Martini R; LeBaron R; Kresse H; Faissner A; Schmitz B; Schachner M
AN 1995346023 MEDLINE

L61 ANSWER 21 OF 29 MEDLINE on STN DUPLICATE 9
TI Expression of a Xenopus counterpart of mammalian syndecan 2 during

embryogenesis.
SO The Biochemical journal, (1995 Jul 1) Vol. 309 (Pt 1), pp. 69-76.
Journal code: 2984726R. ISSN: 0264-6021.
AU Rosenblum N D; Botelho B B; Bernfield M
AN 1995344398 MEDLINE

L61 ANSWER 22 OF 29 MEDLINE on STN DUPLICATE 10
TI A sulfated proteoglycan as a novel ligand for CD44.
SO The Journal of dermatology, (1994 Nov) Vol. 21, No. 11, pp. 795-801.
Journal code: 7600545. ISSN: 0385-2407.
AU Toyama-Sorimachi N; Miyasaka M
AN 1995155671 MEDLINE

L61 ANSWER 23 OF 29 MEDLINE on STN
TI A novel ligand for CD44 is sulfated proteoglycan.
SO International immunology, (1994 Apr) Vol. 6, No. 4, pp. 655-60.
Journal code: 8916182. ISSN: 0953-8178.
AU Toyama-Sorimachi N; Miyasaka M
AN 1994289347 MEDLINE

L61 ANSWER 24 OF 29 MEDLINE on STN DUPLICATE 11
TI Regulated expression of syndecan in vascular smooth muscle cells and cloning of rat syndecan core protein cDNA.
SO The Journal of biological chemistry, (1992 Aug 5) Vol. 267, No. 22, pp. 15729-36.
Journal code: 2985121R. ISSN: 0021-9258.
AU Cizmeci-Smith G; Asundi V; Stahl R C; Teichman L J; Chernousov M; Cowan K; Carey D J
AN 1992348435 MEDLINE

L61 ANSWER 25 OF 29 MEDLINE on STN DUPLICATE 12
TI Monoclonal antibodies directed against epitopes within the core protein structure of the large aggregating proteoglycan (aggrecan) from the swarm rat chondrosarcoma.
SO Archives of biochemistry and biophysics, (1992 Nov 1) Vol. 298, No. 2, pp. 349-60.
Journal code: 0372430. ISSN: 0003-9861.
AU Calabro A; Hascall V C; Caterson B
AN 1993037466 MEDLINE

L61 ANSWER 26 OF 29 MEDLINE on STN
TI Evidence for differential regulation of genes in the chondroitin sulfate utilization pathway of Bacteroides thetaiotaomicron.
SO Journal of bacteriology, (1992 Jan) Vol. 174, No. 1, pp. 342-4.
Journal code: 2985120R. ISSN: 0021-9193.
AU Hwa V; Salyers A A
AN 1992104986 MEDLINE

L61 ANSWER 27 OF 29 HCAPLUS COPYRIGHT 2008 ACS on STN
TI A new sandwich ELISA method, monoclonal antibody, and kit for the detection and/or quantification of keratan sulfate peptides in biological fluids
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2
IN Ghosh, Peter; Kongtawelert, Prachya
AN 1990:627577 HCAPLUS
DN 113:227577
OREF 113:38309a,38312a

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9007120	A1	19900628	WO 1989-AU548	19891219
W: AU, JP, US				

RW: AT, BE, CH, DE, ES, FR, GB, IT, LU, NL, SE
CA 2005795 A1 19900619 CA 1989-2005795 19891218
AU 9048193 A 19900710 AU 1990-48193 19891219

L61 ANSWER 28 OF 29 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Fluorescent morphological probe for hyaluronate
SO Journal of Cell Biology (1985), 100(5), 1753-8
CODEN: JCLBA3; ISSN: 0021-9525
AU Knudson, Cheryl B.; Toole, Bryan P.
AN 1985:434409 HCAPLUS
DN 103:34409
OREF 103:5543a,5546a

L61 ANSWER 29 OF 29 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI CORRELATION OF HUMAN CERVICAL RIPENING AND GLYCO CONJUGATES GLYCOSAMINO GLYCANS AND GLYCO PROTEINS.
SO Acta Obstetrica et Gynaecologica Japonica (Japanese Edition), (1980) Vol. 32, No. 12, pp. 1967-1976.
CODEN: NISFAY. ISSN: 0300-9165.
AU SHIMIZU T [Reprint author]
AN 1981:256720 BIOSIS

=> d ab 12,16

L61 ANSWER 12 OF 29 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
AB Modulating the rate of wound healing and tissue repair in a human or animal involves administering to the cells around the wound or tissue glycosaminoglycan-degrading enzymes (I) in an amount effective to alter the effect of the endogenous (I) cells. The cells are muscle, fibroblast, endothelium or epithelium cells. (I) used for restenosis inhibition or revascularization. (I) is targeted to the surface of target cells by: incorporation of a cell-specific ligand binding function and heparin or heparan sulfate degrading activity into a fusion protein having (I) activity by genetic engineering; or by enhancing local concentration of (I) activity in the vicinity of the target cells with a delivery vehicle. (I) is preferably recombinant heparin-lyase (EC-4.2.2.7), chondroitinase-AC or chondroitinase-B from Flavobacterium heparinum, heparin-lyase from Flavobacterium sp, Hp206 or Cytophaga sp., chondroitin-sulfate-degrading enzyme from Bacteroides, Proteus vulgaris, Micrococcus or Arthrobacter aurescens or chondroitin-degrading enzyme from Vibrio. A composition of (I) is also claimed for use in therapy. (83pp)

L61 ANSWER 16 OF 29 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
AB Repair of damaged connective tissue involves treating the tissue with an enzyme (I) which alters a proteoglycan component (PGC) (specifically aggrecan) of the extracellular matrix of the chondrocytes present in the tissue and stimulates the chondrocytes to produce new cartilage matrix. (I) is preferably a proteoglycanase which depolymerizes a glycosaminoglycan chain of PGC (preferably chondroitin-ABC-lyase ((Ia), EC-4.2.2.4)), or a protease which cleaves a peptide bond of a core polypeptide of PGC. Also claimed are: (1) a method for stimulating connective tissue generation by treating the chondrocyte with (I), so that the chrondrocytes are induced to synthesize cartilage matrix; and (2) a recombinant chondroitinase (I') composed (Ia) covalently linked to a matrix binding domain (II) which specifically binds to a territorial extracellular matrix component of the chondrocyte and thus sequesters (Ia) to the extracellular matrix of the chondrocyte. (II) is not naturally associated with (Ia), and is preferably composed of a

fibronectin protein sequence. (Ia) and (II) are preferably present together in a single polypeptide chain fusion protein. (31pp)

```
=> s neurotroph? or (nerve or neuron)(3a)(growth factor#) or ngf or bdnf or nt3 or
nt(w)3 or igf
FILE 'MEDLINE'
         18720 NEUROTROPH?
        386985 NERVE
         46218 NEURON
        978130 GROWTH
       2835961 FACTOR#
        223166 GROWTH FACTOR#
                 (GROWTH(W)FACTOR#)
         23689 (NERVE OR NEURON)(3A)(GROWTH FACTOR#)
          9896 NGF
          5432 BDNF
           341 NT3
         18354 NT
       3508568 3
          1780 NT(W)3
         27953 IGF
L62      62204 NEUROTROPH? OR (NERVE OR NEURON)(3A)(GROWTH FACTOR#) OR NGF OR
               BDNF OR NT3 OR NT(W)3 OR IGF

FILE 'SCISEARCH'
         24913 NEUROTROPH?
        194295 NERVE
         53988 NEURON
       1288547 GROWTH
       1838090 FACTOR#
        281972 GROWTH FACTOR#
                 (GROWTH(W)FACTOR#)
         21162 (NERVE OR NEURON)(3A)(GROWTH FACTOR#)
         10556 NGF
          6797 BDNF
           380 NT3
         21413 NT
       3481243 3
          1950 NT(W)3
         30458 IGF
L63      71155 NEUROTROPH? OR (NERVE OR NEURON)(3A)(GROWTH FACTOR#) OR NGF OR
               BDNF OR NT3 OR NT(W)3 OR IGF

FILE 'LIFESCI'
          9378 NEUROTROPH?
         51562 NERVE
         19713 NEURON
        316141 "GROWTH"
        425378 FACTOR#
         61686 GROWTH FACTOR#
                 ("GROWTH"(W)FACTOR#)
          6866 (NERVE OR NEURON)(3A)(GROWTH FACTOR#)
          5288 NGF
          2950 BDNF
           180 NT3
          9493 NT
        564649 3
          1004 NT(W)3
          6450 IGF
L64      20746 NEUROTROPH? OR (NERVE OR NEURON)(3A)(GROWTH FACTOR#) OR NGF OR
```

```
              BDNF OR NT3 OR NT(W)3 OR IGF

FILE 'BIOTECHDS'
           973 NEUROTROPH?
          2813 NERVE
          2119 NEURON
         74229 GROWTH
         50624 FACTOR#
         18030 GROWTH FACTOR#
                 (GROWTH(W)FACTOR#)
           846 (NERVE OR NEURON)(3A)(GROWTH FACTOR#)
           399 NGF
           281 BDNF
            41 NT3
          1433 NT
        189852 3
           137 NT(W)3
          1009 IGF
L65        2590 NEURON)(3A)(GROWTH FACTOR#) OR NGF OR
              BDNF OR NT3 OR NT(W)3 OR IGF

FILE 'BIOSIS'
          25660 NEUROTROPH?
         257065 NERVE
         154274 NEURON
        1284717 GROWTH
        1707892 FACTOR#
         270593 GROWTH FACTOR#
                 (GROWTH(W)FACTOR#)
          21749 (NERVE OR NEURON)(3A)(GROWTH FACTOR#)
          13013 NGF
           8289 BDNF
            536 NT3
          20388 NT
        3395867 3
           2351 NT(W)3
          33100 IGF
L66       76038 NEUROTROPH? OR (NERVE OR NEURON)(3A)(GROWTH FACTOR#) OR NGF OR
              BDNF OR NT3 OR NT(W)3 OR IGF

FILE 'EMBASE'
          21671 NEUROTROPH?
         487821 NERVE
          45359 NEURON
         743536 "GROWTH"
        1595914 FACTOR#
         216783 GROWTH FACTOR#
                 ("GROWTH"(W)FACTOR#)
          16913 (NERVE OR NEURON)(3A)(GROWTH FACTOR#)
           9609 NGF
           5362 BDNF
            319 NT3
          19072 NT
        2246618 3
           1731 NT(W)3
          24438 IGF
L67       57872 NEUROTROPH? OR (NERVE OR NEURON)(3A)(GROWTH FACTOR#) OR NGF OR
              BDNF OR NT3 OR NT(W)3 OR IGF

FILE 'HCAPLUS'
          22717 NEUROTROPH?
         255878 NERVE
```

```
        120485 NEURON
       1479349 GROWTH
       1853128 FACTOR#
        231071 GROWTH FACTOR#
                 (GROWTH(W)FACTOR#)
         18412 (NERVE OR NEURON)(3A)(GROWTH FACTOR#)
         12302 NGF
          5977 BDNF
           663 NT3
         22249 NT
       7411751 3
          1895 NT(W)3
         31664 IGF
L68      67405 NEUROTROPH? OR (NERVE OR NEURON)(3A)(GROWTH FACTOR#) OR NGF OR
               BDNF OR NT3 OR NT(W)3 OR IGF

FILE 'NTIS'
            65 NEUROTROPH?
          6143 NERVE
           733 NEURON
         81499 GROWTH
        156768 FACTOR#
          1926 GROWTH FACTOR#
                 (GROWTH(W)FACTOR#)
            73 (NERVE OR NEURON)(3A)(GROWTH FACTOR#)
            44 NGF
            14 BDNF
             0 NT3
           714 NT
        312257 3
             5 NT(W)3
           237 IGF
L69         375 NEUROTROPH? OR (NERVE OR NEURON)(3A)(GROWTH FACTOR#) OR NGF OR
               BDNF OR NT3 OR NT(W)3 OR IGF

FILE 'ESBIOBASE'
         15015 NEUROTROPH?
        102408 NERVE
         26259 NEURON
        493234 GROWTH
        625245 FACTOR#
        113801 GROWTH FACTOR#
                 (GROWTH(W)FACTOR#)
         12279 (NERVE OR NEURON)(3A)(GROWTH FACTOR#)
         11358 NGF
          4140 BDNF
           254 NT3
         12083 NT
       1088585 3
          1316 NT(W)3
         15007 IGF
L70      32910 NEUROTROPH? OR (NERVE OR NEURON)(3A)(GROWTH FACTOR#) OR NGF OR
               BDNF OR NT3 OR NT(W)3 OR IGF

FILE 'BIOTECHNO'
          4688 NEUROTROPH?
         37208 NERVE
          5439 NEURON
        224695 GROWTH
        296524 FACTOR#
         68934 GROWTH FACTOR#
                 (GROWTH(W)FACTOR#)
```

```
          4928 (NERVE OR NEURON)(3A)(GROWTH FACTOR#)
          2982 NGF
          1192 BDNF
            87 NT3
          6972 NT
        485790 3
           661 NT(W)3
          8702 IGF
L71       16963 NEUROTROPH? OR (NERVE OR NEURON)(3A)(GROWTH FACTOR#) OR NGF OR
                BDNF OR NT3 OR NT(W)3 OR IGF

FILE 'WPIDS'
          2063 NEUROTROPH?
         20117 NERVE
          5659 NEURON
        171297 GROWTH
        213834 FACTOR#
         22612 GROWTH FACTOR#
                 (GROWTH(W)FACTOR#)
          1855 (NERVE OR NEURON)(3A)(GROWTH FACTOR#)
          1142 NGF
           570 BDNF
           111 NT3
          4747 NT
       4491409 3
           333 NT(W)3
          2252 IGF
L72        5577 NEUROTROPH? OR (NERVE OR NEURON)(3A)(GROWTH FACTOR#) OR NGF OR
                BDNF OR NT3 OR NT(W)3 OR IGF

TOTAL FOR ALL FILES
L73      413835 NEUROTROPH? OR (NERVE OR NEURON)(3A)(GROWTH FACTOR#) OR NGF OR
                BDNF OR NT3 OR NT(W) 3 OR IGF


=> s l24 and l73
FILE 'MEDLINE'
L74           24 L13 AND L62

FILE 'SCISEARCH'
L75           40 L14 AND L63

FILE 'LIFESCI'
L76            8 L15 AND L64

FILE 'BIOTECHDS'
L77            4 L16 AND L65

FILE 'BIOSIS'
L78           20 L17 AND L66

FILE 'EMBASE'
L79           19 L18 AND L67

FILE 'HCAPLUS'
L80           33 L19 AND L68

FILE 'NTIS'
L81            0 L20 AND L69

FILE 'ESBIOBASE'
L82           15 L21 AND L70
```

```
FILE 'BIOTECHNO'
L83          1 L22 AND L71

FILE 'WPIDS'
L84         13 L23 AND L72

TOTAL FOR ALL FILES
L85        177 L24 AND L73

=> s l85 not 2004-2008/py
FILE 'MEDLINE'
       3164820 2004-2008/PY
                 (20040000-20089999/PY)
L86         15 L74 NOT 2004-2008/PY

FILE 'SCISEARCH'
       5928866 2004-2008/PY
                 (20040000-20089999/PY)
L87         15 L75 NOT 2004-2008/PY

FILE 'LIFESCI'
        754837 2004-2008/PY
L88          4 L76 NOT 2004-2008/PY

FILE 'BIOTECHDS'
        117217 2004-2008/PY
L89          0 L77 NOT 2004-2008/PY

FILE 'BIOSIS'
       2726031 2004-2008/PY
L90         13 L78 NOT 2004-2008/PY

FILE 'EMBASE'
       2737448 2004-2008/PY
L91         10 L79 NOT 2004-2008/PY

FILE 'HCAPLUS'
       6404667 2004-2008/PY
L92         14 L80 NOT 2004-2008/PY

FILE 'NTIS'
         78657 2004-2008/PY
L93          0 L81 NOT 2004-2008/PY

FILE 'ESBIOBASE'
       1562411 2004-2008/PY
L94          9 L82 NOT 2004-2008/PY

FILE 'BIOTECHNO'
           586 2004-2008/PY
L95          1 L83 NOT 2004-2008/PY

FILE 'WPIDS'
       5473730 2004-2008/PY
L96          2 L84 NOT 2004-2008/PY

TOTAL FOR ALL FILES
L97         83 L85 NOT 2004-2008/PY

=> dup rem l97
PROCESSING COMPLETED FOR L97
```

L98 35 DUP REM L97 (48 DUPLICATES REMOVED)

=> d tot

L98 ANSWER 1 OF 35 MEDLINE on STN DUPLICATE 1
TI Synergistic effects of brain-derived neurotrophic factor and chondroitinase ABC on retinal fiber sprouting after denervation of the superior colliculus in adult rats.
SO The Journal of neuroscience : the official journal of the Society for Neuroscience, (2003 Aug 6) Vol. 23, No. 18, pp. 7034-44. Journal code: 8102140. E-ISSN: 1529-2401.
AU Tropea Daniela; Caleo Matteo; Maffei Lamberto
AN 2003370623 MEDLINE

L98 ANSWER 2 OF 35 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Meningeal cell-derived semaphorin 3A inhibits neurite outgrowth
SO MOLECULAR AND CELLULAR NEUROSCIENCE, (DEC 2003) Vol. 24, No. 4, pp. 902-912. ISSN: 1044-7431.
AU Niclou S P (Reprint); Franssen E H P; Ehlert E M E; Taniguchi M; Verhaagen J
AN 2004:41565 SCISEARCH

L98 ANSWER 3 OF 35 MEDLINE on STN
TI Glycosaminoglycan structures required for strong binding to midkine, a heparin-binding growth factor.
SO Glycobiology, (2003 Jan) Vol. 13, No. 1, pp. 35-42. Electronic Publication: 2002-10-30. Journal code: 9104124. ISSN: 0959-6658.
AU Zou Peng; Zou Kun; Muramatsu Hisako; Ichihara-Tanaka Keiko; Habuchi Osami; Ohtake Shiori; Ikematsu Shinya; Sakuma Sadatoshi; Muramatsu Takashi
AN 2003120277 MEDLINE

L98 ANSWER 4 OF 35 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Combined use of matrix degrading enzymes and neurotrophic factors to facilitate axonal regeneration after spinal cord injury.
SO Society for Neuroscience Abstract Viewer and Itinerary Planner, (2003) Vol. 2003, pp. Abstract No. 245.11. http://sfn.scholarone.com. e-file. Meeting Info.: 33rd Annual Meeting of the Society of Neuroscience. New Orleans, LA, USA. November 08-12, 2003. Society of Neuroscience.
AU Mayes, D. A. [Reprint Author]; Houle, J. D. [Reprint Author]
AN 2004:196106 BIOSIS

L98 ANSWER 5 OF 35 Elsevier BIOBASE COPYRIGHT 2008 Elsevier Science B.V. on STN
AN 2002040892 ESBIOBASE
TI Repellent guidance of regenerating optic axons by chondroitin sulfate glycosaminoglycans in zebrafish
AU Becker C.G.; Becker T.
CS Dr. C.G. Becker, Zentrum Molek. Neurobiol. Hamburg, Universitat Hamburg, Martinistrasse 52, D-20246 Hamburg, Germany. E-mail: tcbecker@zmnh.uni-hamburg.de
SO Journal of Neuroscience, (01 FEB 2002), 22/3 (842-853), 79 reference(s) CODEN: JNRSDS ISSN: 0270-6474
DT Journal; Article
CY United States
LA English
SL English

L98 ANSWER 6 OF 35 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI Bridging the transected or contused adult rat spinal cord with Schwann cell and olfactory ensheathing glia transplants
SO SPINAL CORD TRAUMA: REGENERATION, NEURAL REPAIR AND FUNCTIONAL RECOVERY, (2002) Vol. 137, pp. 275-282.
ISSN: 0079-6123.
AU Bunge M B (Reprint)
AN 2003:24248 SCISEARCH

L98 ANSWER 7 OF 35 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI SYNERGISTIC EFFECTS OF BRAIN - DERIVED NEUROTROPHIC FACTOR AND CHONDROITINASE ABC TREATMENT ON THE REGROWTH OF RETINAL FIBERS INTO THE DENERVATED SUPERIOR COLLICULUS OF THE ADULT RAT.
SO Society for Neuroscience Abstract Viewer and Itinerary Planner, (2002) Vol. 2002, pp. Abstract No. 334.5. http://sfn.scholarone.com. cd-rom.
Meeting Info.: 32nd Annual Meeting of the Society for Neuroscience. Orlando, Florida, USA. November 02-07, 2002. Society for Neuroscience.
AU Tropea, D. [Reprint Author]; Caleo, M.; Maffei, L. [Reprint Author]
AN 2003:293968 BIOSIS

L98 ANSWER 8 OF 35 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Inhibitory mechanism by polysialic acid for lamina-specific branch formation of thalamocortical axons
SO JOURNAL OF NEUROSCIENCE, (15 DEC 2000) Vol. 20, No. 24, pp. 9145-9151.
ISSN: 0270-6474.
AU Yamamoto N (Reprint); Inui K; Matsuyama Y; Harada A; Hanamura K; Murakami F; Ruthazer E S; Rutishauser U; Seki T
AN 2001:21347 SCISEARCH

L98 ANSWER 9 OF 35 MEDLINE on STN DUPLICATE 2
TI Chondroitinase ABC promotes axonal regeneration of Clarke's neurons after spinal cord injury.
SO Neuroreport, (2000 Apr 7) Vol. 11, No. 5, pp. 1063-7.
Journal code: 9100935. ISSN: 0959-4965.
AU Yick L W; Wu W; So K F; Yip H K; Shum D K
AN 2000251479 MEDLINE

L98 ANSWER 10 OF 35 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Glial derived neurotrophic factor (gdnf)-induced neurite outgrowth is dependent upon chondroitin sulfate proteoglycans.
SO Society for Neuroscience Abstracts, (2000) Vol. 26, No. 1-2, pp. Abstract No.-602.3. print.
Meeting Info.: 30th Annual Meeting of the Society of Neuroscience. New Orleans, LA, USA. November 04-09, 2000. Society for Neuroscience.
ISSN: 0190-5295.
AU Bilak, M. M. [Reprint author]; Kim, J. H.; Kuncl, R. W.
AN 2001:108690 BIOSIS

L98 ANSWER 11 OF 35 WPIDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI New composition for inducing in vivo cartilage repair - comprises osteo-inducive and/or chondroinducive mixture of factors from natural/synthetic tissues
PI EP 896825 A1 19990217 (199912)* EN 18[6]
R: AL AT BE CH DE DK ES FI FR GB GR IE IT LI LT LU LV MC NL PT RO SE SI
WO 9908728 A1 19990225 (199915) EN
W: AU CA JP US
AU 9892607 A 19990308 (199929) EN
JP 2001514935 W 20010918 (200169) JA 30
AU 746151 B 20020418 (200238) EN
EP 896825 B1 20020717 (200254) EN

R: AT BE CH DE DK ES FI FR GB IE IT LI LU NL SE
DE 69714035 E 20020822 (200263) DE
US 6514514 B1 20030204 (200313) EN
US 6582471 B1 20030624 (200343) EN
IN ATKINSON B; ATKINSON B A; BENEDICT J J; BITTMANN P; CHICKERING D; RANIERI J; WHITNEY M L

L98 ANSWER 12 OF 35 Elsevier BIOBASE COPYRIGHT 2008 Elsevier Science B.V. on STN
AN 1999267114 ESBIOBASE
TI Heparan sulfate in the inner limiting membrane of embryonic chicken retina binds basic fibroblast growth factor to promote axonal outgrowth
AU Chai L.; Morris J.E.
CS L. Chai, Department of Zoology, Oregon State University, Corvallis, OR 97331, United States.
SO Experimental Neurology, (1999), 160/1 (175-185), 71 reference(s) CODEN: EXNEAC ISSN: 0014-4886
DT Journal; Article
CY United States
LA English
SL English

L98 ANSWER 13 OF 35 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Neuronal matrix metalloproteinase-2 degrades and inactivates a neurite-inhibiting chondroitin sulfate proteoglycan
SO JOURNAL OF NEUROSCIENCE, (15 JUL 1998) Vol. 18, No. 14, pp. 5203-5211. ISSN: 0270-6474.
AU Zuo J; Ferguson T A; Hernandez Y J; Stetler-Stevenson W G; Muir D (Reprint)
AN 1998:520883 SCISEARCH

L98 ANSWER 14 OF 35 LIFESCI COPYRIGHT 2008 CSA on STN
TI Characteristic hexasaccharide sequences in octasaccharides derived from shark cartilage chondroitin sulfate D with a neurite outgrowth promoting activity
SO J. BIOL. CHEM., (19980200) vol. 273, no. 6, pp. 3296-3307. ISSN: 0021-9258.
AU Nadanaka, S.; Clement, A.; Masayama, K.; Faissner, A.; Sugahara, K.*
AN 1998:39847 LIFESCI

L98 ANSWER 15 OF 35 MEDLINE on STN DUPLICATE 3
TI Specificity and synergism of polypeptide growth factors in stimulating the synthesis of proteoglycans and a novel high molecular weight anionic glycoprotein by articular chondrocyte cultures.
SO The Journal of rheumatology, (1998 Aug) Vol. 25, No. 8, pp. 1578-84. Journal code: 7501984. ISSN: 0315-162X.
AU Chopra R; Anastassiades T
AN 1998375922 MEDLINE

L98 ANSWER 16 OF 35 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI A culture substratum appropriate for brain cells is a chondroitin sulfate glycosaminoglycan in serum
SO CELL AND TISSUE RESEARCH, (MAR 1998) Vol. 291, No. 3, pp. 445-454. ISSN: 0302-766X.
AU Watanabe M; Ishikawa K (Reprint); Tatemoto K
AN 1998:162251 SCISEARCH

L98 ANSWER 17 OF 35 MEDLINE on STN DUPLICATE 4
TI Growth factors increase pericellular proteoglycans independently of their mitogenic effects on A10 rat vascular smooth muscle cells.

SO The international journal of biochemistry & cell biology, (1998 Jan) Vol. 30, No. 1, pp. 47-54.
Journal code: 9508482. ISSN: 1357-2725.
AU Emoto N; Onose H; Yamada H; Minami S; Tsushima T; Wakabayashi I
AN 1998260041 MEDLINE

L98 ANSWER 18 OF 35 WPIDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI Increasing or decreasing transfection efficiency - by altering amount of membrane-associated proteoglycans and optionally plasma concentrations of glycosaminoglycans
PI WO 9734483 A1 19970925 (199745)* EN 64[5]
RW: AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN YU
AU 9722145 A 19971010 (199806) EN
US 5783566 A 19980721 (199836) EN
IN MISLICK K A

L98 ANSWER 19 OF 35 MEDLINE on STN DUPLICATE 5
TI Heparin inhibition of insulin-like growth factor-binding protein-3 binding to human fibroblasts and rat glioma cells: role of heparan sulfate proteoglycans.
SO Endocrinology, (1996 Oct) Vol. 137, No. 10, pp. 4363-71.
Journal code: 0375040. ISSN: 0013-7227.
AU Yang Y W; Yanagishita M; Rechler M M
AN 1996426203 MEDLINE

L98 ANSWER 20 OF 35 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Comparison studies of IGFBP-5 binding to osteoblasts and osteoblast-derived extracellular matrix
SO Progress in Growth Factor Research (1996), Volume Date 1995, 6(2-4, Proceedings of the Third International Symposium on IGF Binding Proteins, 1995), 337-344
CODEN: PGFREH; ISSN: 0955-2235
AU Andress, Dennis L.
AN 1996:438105 HCAPLUS
DN 125:105814
OREF 125:19603a,19606a

L98 ANSWER 21 OF 35 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI CHARACTERIZATION OF HEPARAN-SULFATE OLIGOSACCHARIDES THAT BIND TO HEPATOCYTE GROWTH-FACTOR
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (8 DEC 1995) Vol. 270, No. 49, pp. 29586-29593.
ISSN: 0021-9258.
AU ASHIKARI S (Reprint); HABUCHI H; KIMATA K
AN 1995:825935 SCISEARCH

L98 ANSWER 22 OF 35 MEDLINE on STN DUPLICATE 6
TI Purification of a meningeal cell-derived chondroitin sulphate proteoglycan with neurotrophic activity for brain neurons and its identification as biglycan.
SO The European journal of neuroscience, (1995 Nov 1) Vol. 7, No. 11, pp. 2341-50.
Journal code: 8918110. ISSN: 0953-816X.
AU Junghans U; Koops A; Westmeyer A; Kappler J; Meyer H E; Muller H W
AN 1996149645 MEDLINE

L98 ANSWER 23 OF 35 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on

STN
TI The neuronal chondroitin sulfate proteoglycan neurocan binds to the neural cell adhesion molecules Ng-CAM/L1/NILE and N-CAM, and inhibits neuronal adhesion and neurite outgrowth.
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CODEN: JCLBA3. ISSN: 0021-9525.
AU Friedlander, David R. [Reprint author]; Milev, Peter; Karthikeyan, Laina; Margolis, Renee K.; Margolis, Richard U.; Grumet, Martin
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L98 ANSWER 24 OF 35 MEDLINE on STN DUPLICATE 7
TI Stimulation of rat vascular smooth muscle cell glycosaminoglycan production by angiotensin II.
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L98 ANSWER 25 OF 35 MEDLINE on STN
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AU Imai Y; Odajima R; Inoue Y; Shishiba Y
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L98 ANSWER 26 OF 35 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Embryonic brain-derived heparan sulfate inhibits cellular membrane binding and biological activity of basic fibroblast growth factor
SO Developmental Brain Research (1992), 68(2), 247-53
CODEN: DBRRDB; ISSN: 0165-3806
AU Hondermarck, Hubert; Deudon, Elisabeth; Boilly, Benoni
AN 1992:605491 HCAPLUS
DN 117:205491
OREF 117:35285a,35288a

L98 ANSWER 27 OF 35 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Characterization of substances which promote or repel sympathetic fiber growth in vitro
SO Neuroscience Research (Oxford, United Kingdom) (1992), 14(3), 213-25
CODEN: NERADN; ISSN: 0168-0102
AU Kuromi, Hiroshi
AN 1993:74254 HCAPLUS
DN 118:74254
OREF 118:12874h,12875a

L98 ANSWER 28 OF 35 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Inhibition of cell growth by keratin sulfate, chondroitin sulfate, dermatan sulfate, and other proteoglycans
SO PCT Int. Appl., 133 pp.
CODEN: PIXXD2
IN Snow, Diane M.; Silver, Jerry; Harel, Adrian; Roufa, Dikla
AN 1991:574647 HCAPLUS
DN 115:174647
OREF 115:29609a,29612a

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9106303	A1	19910516	WO 1990-US6189	19901026

W: AU, BB, BG, BR, CA, DK, ES, FI, HU, JP, KR, LK, MC, MG, MW, NO, RO, SD, SE, SU
RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, DK, ES, FR, GA, GB, GR, IT, LU, ML, MR, NL, SE, SN, TD, TG

CA 2071898	A1	19910428	CA 1990-2071898	19901026
AU 9168726	A	19910531	AU 1991-68726	19901026
EP 493533	A1	19920708	EP 1990-917627	19901026
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
JP 06502840	T	19940331	JP 1991-500439	19901026

L98 ANSWER 29 OF 35 MEDLINE on STN DUPLICATE 8
TI Inhibitory effects of brain chondroitin sulfate proteoglycans on neurite outgrowth from PC12D cells.
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AN 1991162310 MEDLINE

L98 ANSWER 30 OF 35 MEDLINE on STN DUPLICATE 9
TI Nerve growth factor induces development of connective tissue-type mast cells in vitro from murine bone marrow cells.
SO The Journal of experimental medicine, (1991 Jul 1) Vol. 174, No. 1, pp. 7-14.
Journal code: 2985109R. ISSN: 0022-1007.
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AN 1991277629 MEDLINE

L98 ANSWER 31 OF 35 MEDLINE on STN
TI Astroglia-released neurite growth-inducing activity for embryonic hippocampal neurons is associated with laminin bound in a sulfated complex and free fibronectin.
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AU Matthiessen H P; Schmalenbach C; Muller H W
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L98 ANSWER 32 OF 35 MEDLINE on STN
TI Association of laminin with heparan and chondroitin sulfate-bearing proteoglycans in neurite-promoting factor complexes from rat schwannoma cells.
SO Neurochemical research, (1987 Oct) Vol. 12, No. 10, pp. 909-21.
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AU Davis G E; Klier F G; Engvall E; Cornbrooks C; Varon S; Manthorpe M
AN 1988066205 MEDLINE

L98 ANSWER 33 OF 35 MEDLINE on STN
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SO Brain research, (1985 Jul) Vol. 353, No. 1, pp. 49-60.
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AU Nurcombe V; Tout S; Bennett M R
AN 1985281534 MEDLINE

L98 ANSWER 34 OF 35 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Studies on extracellular matrix components that promote neurite outgrowth
SO Cold Spring Harbor Symposia on Quantitative Biology (1983), 48(Mol. Neurobiol.), 611-23
CODEN: CSHSAZ; ISSN: 0091-7451
AU Lander, A. D.; Tomaselli, K.; Calof, A. L.; Reichardt, L. F.
AN 1984:544777 HCAPLUS
DN 101:144777
OREF 101:21829a,21832a

L98 ANSWER 35 OF 35 MEDLINE on STN DUPLICATE 10
TI Characterization of a factor that promotes neurite outgrowth: evidence

linking activity to a heparan sulfate proteoglycan.
SO The Journal of cell biology, (1982 Sep) Vol. 94, No. 3, pp. 574-85.
Journal code: 0375356. ISSN: 0021-9525.
AU Lander A D; Fujii D K; Gospodarowicz D; Reichardt L F
AN 1983030965 MEDLINE

=> d ab 1,5,7,9-11,15,17,28

L98 ANSWER 1 OF 35 MEDLINE on STN DUPLICATE 1
AB Damage to the adult CNS often causes devastating and permanent deficits because of the limited capacity of the brain for anatomical reorganization. The finding that collateral sprouting of uninjured fiber tracts mediates recovery of function prompts the search for experimental strategies that stimulate axonal plasticity after CNS trauma. Here we characterize treatments that promote the sprouting of undamaged retinal afferents into the denervated superior colliculus (SC) after a partial retinal lesion in the adult rat. Delivery of brain-derived neurotrophic factor (BDNF) was performed to enhance the intrinsic potential of retinal ganglion cells to reelongate their axons. Reduction of the neurite growth-inhibitory properties of the adult SC was accomplished via treatment with chondroitinase ABC (C-ABC), which degrades chondroitin sulfate proteoglycans. Retinal axons were labeled via intraocular injections of fluorescently tagged cholera toxin B subunit, and fiber sprouting within the denervated SC was measured by quantitative laser-scanning confocal microscopy 1 week after the retinal lesion. We found that both the administration of BDNF and the injection of C-ABC induce significant sprouting of retinal afferents into the collicular scotoma. Remarkably, the combined treatment with BDNF and C-ABC showed synergistic effects on axon growth. Colocalization analysis with anti-synapsin antibodies demonstrated synapse formation by the sprouting axons. These results suggest that the combined treatment with BDNF and C-ABC can be relevant in therapies for the repair of the damaged adult CNS.

L98 ANSWER 5 OF 35 Elsevier BIOBASE COPYRIGHT 2008 Elsevier Science B.V. on STN
AB We analyzed the role of chondroitin sulfate (CS) glycosaminoglycans, putative inhibitors of axonal regeneration in mammals, in the regenerating visual pathway of adult zebrafish. In the adult, CS immunoreactivity was not detectable before or after an optic nerve crush in the optic nerve and tract but was constitutively present in developing and adult nonretinorecipient pretectal brain nuclei, where CSs may form a boundary preventing regenerating optic fibers from growing into these inappropriate locations. Enzymatic removal of CSs by chondroitinase ABC after optic nerve crush significantly increased the number of animals showing erroneous growth of optic axons into the nonretinorecipient magnocellular superficial/posterior pretectal nucleus (83% vs 42% in controls). In vitro, a substrate border of CSs, but not heparan sulfates, strongly repelled regenerating retinal axons from adult zebrafish. We conclude that CSs contribute to repellent axon guidance during regeneration of the optic projection in zebrafish.

L98 ANSWER 7 OF 35 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
AB Severed fiber tracts in the central nervous system are unable to reconnect with their targets. Here we identify treatments that promote the sprouting of retinal ganglion cell (RGC) fibers into the denervated superior colliculus (SC) of the adult rat. RGCs located in the inferior retinal quadrant were unilaterally axotomized. One week later, the lesioned eye was injected with cholera toxin B to label the retinotectal projections. We used confocal microscopy to measure retinal fiber density and synaptic density (after immunostaining with anti-synapsin antibodies)

at the border and in the center of the denervated area of the SC (collicular scotoma). To stimulate the reinnervation of the scotoma we used different approaches: administration into the SC of (i) brain-derived neurotrophic factor (BDNF), (ii) functional blocking antibodies to the NOGO protein and (iii) chondroitinase ABC (C-ABC), an enzyme that neutralizes the inhibitory action of chondroitin sulphate proteoglycans. Rearing in an enriched environment was also tested. All these treatments increased fiber density at the border of the collicular scotoma. However, only C-ABC treatment promoted regrowth of retinal fibers towards the center of the scotoma. The action of C-ABC on fiber growth was synergistic with that of BDNF. Synaptic density at the border of the collicular scotoma was also significantly increased by the combined administration of C-ABC and BDNF. Enriched environment increased synaptic density values both at the border and in the center of the collicular scotoma.

L98 ANSWER 9 OF 35 MEDLINE on STN DUPLICATE 2

AB We examined whether enzymatic digestion of chondroitin sulfate (CS) promoted the axonal regeneration of neurons in Clarke's nucleus (CN) into a peripheral nerve (PN) graft following injury of the spinal cord. After hemisection at T11, a segment of PN graft was implanted at the lesion site. Either vehicle, brain-derived neurotrophic factor (BDNF) or chondroitinase ABC was applied at the implantation site. The postoperative survival period was 4 weeks. Treatment with vehicle or BDNF did not promote the axonal regeneration of CN neurons into the PN graft. Application of 2.5 unit/ml chondroitinase ABC resulted in a significant increase (12.8%) in the number of regenerated CN neurons. Double labeling with Fluoro-Gold and NADPH-diaphorase histochemistry showed that the regenerated CN neurons did not express nitric oxide synthase (NOS). Our results suggest that CS is inhibitory to the regeneration of CN neurons following injury of the spinal cord.

L98 ANSWER 10 OF 35 BIOSIS on STN

AB Chondroitin sulfate proteoglycans (CSPGs) have a variety of effects on neurite outgrowth. Depending on their location and types of molecular interactions, CSPGs may either promote or inhibit axonal growth. One way of creating a permissive microenvironment for regenerating axons in injured CNS may be upregulation of CSPGs by extrinsic factors. We have previously shown that GDNF promotes neurite outgrowth in postnatal organotypic spinal cord cultures. Here, we tested (1) whether the expression of CSPG coincides with and determines the area of active axonal growth, and (2) whether the upregulation of CSPGs mediates GDNF's neurite promoting activity. Cultures prepared from postnatal-day-8 rats were incubated from day 1 with either chondroitinase ABC (CSase), GDNF, or both for 4 or more days. Age-matched, untreated control cultures served as controls. Cultures were processed for immunohistochemistry using antibodies for NF-H and chondroitin sulfate (CS). Quantitation of neurite outgrowth was done independently by two investigators on photographs masked to culture treatment. GDNF treatment of spinal cord resulted in profuse neurite outgrowth in the axotomized white matter. Double immunohistochemistry revealed that the areas of most active neurite growth near the outer edge of the white matter coincided with the increased expression of CSPGs. Furthermore, simultaneous treatment of spinal cord with GDNF and CSase significantly reduced the neurite-promoting action of GDNF ($p<0.05$). Neither active axonal growth nor the CSPG-positive area was found in untreated cultures or cultures treated with CSase alone near the edge of the slice. Absence of immunoreactive CSPG confirmed complete digestion by CSase. Our data agree with previous reports of the stimulatory effects of CSPGs on axonal regeneration, and further suggest that the neurite-promoting action of

GDNF may be, at least in part, mediated by upregulation of CSPGs in the area of active axonal growth in spinal cord. These data will provide molecular insight for understanding the interactions of neurotrophic factors and extracellular matrix molecules in promoting axonal regeneration in the injured spinal cord.

L98 ANSWER 11 OF 35 WPIDS COPYRIGHT 2008 THOMSON REUTERS on STN
AB EP 896825 A1 UPAB: 20060115
New composition for inducing in vivo cartilage repair comprising an osteoinducive and/or chondroinductive mixture of factors derived from natural tissue or a synthetic mimic of such a mixture encapsulated in nanospheres, polymer particles having a size ≤1000 nm and an in vitro analytically determined release rate profile with an initial burst of 10-20% of the total load over the first 24 hours and a long time release of at least 0.1% per day during at least seven following days and the nanospheres are loaded with 0.001-17 weight% of the mixture factors. Also claimed are: (a) a device containing the composition and further comprising a porous biodegradable matrix; and (b) a method for in vivo cartilage repair comprising filling a cartilage defect with a device (as above).

USE - The composition is useful for preparing a device for in vivo cartilage (especially articular or meniscus) repair on an animal with a degenerative disease (claimed). The device is useful for cartilage repair caused by trauma, arthritis, congenital or other origins.

ADVANTAGE - The composition produces significant improvements in repairing large defects. The release of nanospheres forms concentration gradients of proliferation and differentiation factors which obviously mimics the complex gradients of factors observed during the natural development. The nanosphere extended release profile is sufficient for providing growth factor during the time frame that repair cells arrive into the matrix. When the nanospheres are placed in a matrix to form a device for cartilage repair, they are randomly distributed and remain in place when in a joint cartilage defect. Nanospheres are believed to adhere to cartilage precursor cells and may also attach to BMP/TGFβ receptors located on the cell membrane therefore localising high-efficiency delivery to the target cells and/or receptors. The nanospheres are more effective than liposomes or diffusion delivery system and no additional factor (e.g. IGF-1) is required producing a one-step method.

L98 ANSWER 15 OF 35 MEDLINE on STN DUPLICATE 3
AB OBJECTIVE: To determine the specificity of and possible synergism among polypeptide growth factors (PGF) on the net synthesis of proteoglycan and a novel high molecular weight anionic glycoprotein (HMW AG), of roughly 540 kDa, by articular chondrocyte cultures. METHODS: Confluent articular chondrocyte cultures were labeled with either [35S]SO4 or [3H]glucosamine and [35S]SO4 and stimulated by adding the individual PGF or combinations of the PGF. Alcian blue dye precipitation was used for direct rapid quantification of newly synthesized proteoglycans from the media of the 35S labeled cultures. To assess the effects of the PGF on the synthesis of the HMW AG, a toluidine blue dye batch precipitation method was used for isolation of anionic glycoconjugates from the media of the 3H and 35S labeled articular chondrocyte cultures, followed by chondroitinase ABC digestion and gradient sodium dodecyl sulfate polyacrylamide gel electrophoresis. RESULTS: Optimal concentrations of transforming growth factor-beta1 (TGF-beta), insulin-like growth factor-1 (IGF), and platelet derived growth factor (PDGF) stimulated net proteoglycan synthesis per cell by 178, 106, and 101%, respectively. In combinations, TGF-beta + PDGF, TGF-beta + IGF, and PDGF + IGF gave stimulations of proteoglycan synthesis of 418, 384, and 217%, respectively. HMW AG net synthesis was induced by all 3 PGF, but the degree of induction was much greater with TGF-beta. CONCLUSION: Net

proteoglycan synthesis by articular chondrocyte cultures is synergistically stimulated by the addition of optimal concentrations of combinations of TGF-beta + PDGF and TGF-beta + IGF, but not PDGF + IGE Net HMW AG synthesis is preferentially stimulated by TGF-beta.

L98 ANSWER 17 OF 35 MEDLINE on STN DUPLICATE 4
AB Proliferation of vascular smooth muscle cells with the accumulation of proteoglycans in the extracellular matrix is one of the significant changes found in atherosclerotic lesions. In order to clarify the relationship between pericellular proteoglycan and cell growth, we established a simple method for quantitatively estimating the amount of pericellular proteoglycans and investigated the effects of various growth factors on the synthesis of pericellular proteoglycans by cultured A10 rat smooth muscle cells. Analysis of trypsin accessible [35SO4]-labeled material in the pericellular area of the A10 cell culture by Q-sepharose anion-exchange chromatography showed two peaks. One peak, eluted at 0.55 M NaCl, disappeared after treatment with 2 mU/ml of heparitinase, indicating that heparan sulfates (HS) were present. The other peak, which eluted at 0.65 M NaCl, disappeared with 20 mU/ml of chondroitinase ABC, indicating the presence of chondroitin sulfates and dermatan sulfates (CS/DS). We estimated the effects of several growth factors on the synthesis of the pericellular proteoglycans by measuring heparitinase- and chondroitinase-ABC-sensitive radioactivities. Although PDGF-AB significantly stimulated cell proliferation and the synthesis of pericellular CS/DS, its dose-dependent effect on the cell growth did not coincide with that on the proteoglycan synthesis. IGF-I (1 nM) increased pericellular CS/DS but not the cell number, while basic FGF (1 nM) and EGF (1 nM) increased the cell number but not pericellular CS/DS. All the growth factors we examined had no effect on the synthesis of pericellular HS. These results indicate that growth factors increase pericellular proteoglycans independently of their mitogenic effects.

L98 ANSWER 28 OF 35 HCAPLUS COPYRIGHT 2008 ACS on STN
AB Proteoglycans such as keratan sulfate (I), chondroitin sulfate (II), dermatan sulfate (III), heparan sulfate (IV), heparin (V), and hyaluronic acid (VI) are used to prevent neurite outgrowth, i.e. axonal growth, or nerve regeneration, or glial cell migration, invasion, or regeneration. Inhibitors and antagonists of proteoglycans may also be used to promote nerve growth or glial cell migration or invasion. Such inhibitors and antagonists include antibodies, degradative enzymes, lectins, and disaccharide antagonists of the receptors for I, II, III, IV, V, or VI. Chick E-6 dorsal root ganglia (DRG) cells were cultured on nitrocellulose treated with a II-proteoglycan in the presence of nerve growth factor. DRG neurite outgrowth was completely inhibited by 0.4 mg/mL II-proteoglycan.

=> s l12(5a)l73
FILE 'MEDLINE'
L99 93 L1 (5A)L62

FILE 'SCISEARCH'
L100 87 L2 (5A)L63

FILE 'LIFESCI'
L101 62 L3 (5A)L64

FILE 'BIOTECHDS'
L102 69 L4 (5A)L65

FILE 'BIOSIS'
L103 123 L5 (5A)L66

```
FILE 'EMBASE'
L104        93 L6 (5A)L67

FILE 'HCAPLUS'
L105       388 L7 (5A)L68

FILE 'NTIS'
L106         0 L8 (5A)L69

FILE 'ESBIOBASE'
L107        70 L9 (5A)L70

FILE 'BIOTECHNO'
L108        66 L10(5A)L71

FILE 'WPIDS'
L109        43 L11(5A)L72

TOTAL FOR ALL FILES
L110      1094 L12(5A) L73

=> s l110 not 2003-2008/py
FILE 'MEDLINE'
       3738707 2003-2008/PY
                 (20030000-20089999/PY)
L111        69 L99 NOT 2003-2008/PY

FILE 'SCISEARCH'
       7005508 2003-2008/PY
                 (20030000-20089999/PY)
L112        65 L100 NOT 2003-2008/PY

FILE 'LIFESCI'
        882828 2003-2008/PY
L113        46 L101 NOT 2003-2008/PY

FILE 'BIOTECHDS'
        142863 2003-2008/PY
L114        39 L102 NOT 2003-2008/PY

FILE 'BIOSIS'
       3308432 2003-2008/PY
L115        92 L103 NOT 2003-2008/PY

FILE 'EMBASE'
       3253328 2003-2008/PY
L116        63 L104 NOT 2003-2008/PY

FILE 'HCAPLUS'
       7429045 2003-2008/PY
L117       175 L105 NOT 2003-2008/PY

FILE 'NTIS'
         96819 2003-2008/PY
L118         0 L106 NOT 2003-2008/PY

FILE 'ESBIOBASE'
       1862186 2003-2008/PY
L119        49 L107 NOT 2003-2008/PY

FILE 'BIOTECHNO'
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        122467 2003-2008/PY
L120         58 L108 NOT 2003-2008/PY

FILE 'WPIDS'
       6187254 2003-2008/PY
L121         14 L109 NOT 2003-2008/PY

TOTAL FOR ALL FILES
L122        670 L110 NOT 2003-2008/PY

=> s (neuron or neurite or axon?)(2a)(regenerat? or growth)
FILE 'MEDLINE'
          46218 NEURON
           9460 NEURITE
          84805 AXON?
          91223 REGENERAT?
         978130 GROWTH
L123       9001 (NEURON OR NEURITE OR AXON?)(2A)(REGENERAT? OR GROWTH)

FILE 'SCISEARCH'
          53988 NEURON
          15101 NEURITE
          65943 AXON?
         114385 REGENERAT?
        1288547 GROWTH
L124       9821 (NEURON OR NEURITE OR AXON?)(2A)(REGENERAT? OR GROWTH)

FILE 'LIFESCI'
          19713 NEURON
           5288 NEURITE
          33661 AXON?
          29330 REGENERAT?
         316141 GROWTH
L125       4575 (NEURON OR NEURITE OR AXON?)(2A)(REGENERAT? OR GROWTH)

FILE 'BIOTECHDS'
           2119 NEURON
            317 NEURITE
            524 AXON?
          19824 REGENERAT?
          74229 GROWTH
L126        285 (NEURON OR NEURITE OR AXON?)(2A)(REGENERAT? OR GROWTH)

FILE 'BIOSIS'
         154274 NEURON
          13613 NEURITE
          90233 AXON?
         124110 REGENERAT?
        1284717 GROWTH
L127      11783 (NEURON OR NEURITE OR AXON?)(2A)(REGENERAT? OR GROWTH)

FILE 'EMBASE'
          45359 NEURON
          10941 NEURITE
          67425 AXON?
          71286 REGENERAT?
         743536 GROWTH
L128       8649 (NEURON OR NEURITE OR AXON?)(2A)(REGENERAT? OR GROWTH)

FILE 'HCAPLUS'
         120485 NEURON
          10382 NEURITE
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         46901 AXON?
        206190 REGENERAT?
       1479349 GROWTH
L129       9534 (NEURON OR NEURITE OR AXON?)(2A)(REGENERAT? OR GROWTH)

FILE 'NTIS'
           733 NEURON
            26 NEURITE
           495 AXON?
          8432 REGENERAT?
         81499 GROWTH
L130         56 (NEURON OR NEURITE OR AXON?)(2A)(REGENERAT? OR GROWTH)

FILE 'ESBIOBASE'
         26259 NEURON
          5611 NEURITE
         29457 AXON?
         47557 REGENERAT?
        493234 GROWTH
L131       4640 (NEURON OR NEURITE OR AXON?)(2A)(REGENERAT? OR GROWTH)

FILE 'BIOTECHNO'
          5439 NEURON
          2525 NEURITE
          6178 AXON?
         14446 REGENERAT?
        224695 GROWTH
L132       1129 (NEURON OR NEURITE OR AXON?)(2A)(REGENERAT? OR GROWTH)

FILE 'WPIDS'
          5659 NEURON
           619 NEURITE
          1961 AXON?
        114931 REGENERAT?
        171297 GROWTH
L133        616 (NEURON OR NEURITE OR AXON?)(2A)(REGENERAT? OR GROWTH)

TOTAL FOR ALL FILES
L134      60089 (NEURON OR NEURITE OR AXON?)(2A)(REGENERAT? OR GROWTH)

=> s l110 and l134
FILE 'MEDLINE'
L135          1 L99 AND L123

FILE 'SCISEARCH'
L136          2 L100 AND L124

FILE 'LIFESCI'
L137          2 L101 AND L125

FILE 'BIOTECHDS'
L138          0 L102 AND L126

FILE 'BIOSIS'
L139          1 L103 AND L127

FILE 'EMBASE'
L140          1 L104 AND L128

FILE 'HCAPLUS'
L141          7 L105 AND L129
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FILE 'NTIS'
L142         0 L106 AND L130

FILE 'ESBIOBASE'
L143         1 L107 AND L131

FILE 'BIOTECHNO'
L144         1 L108 AND L132

FILE 'WPIDS'
L145         1 L109 AND L133

TOTAL FOR ALL FILES
L146        17 L110 AND L134

=> s l73 and l134
FILE 'MEDLINE'
L147      1888 L62 AND L123

FILE 'SCISEARCH'
L148      2471 L63 AND L124

FILE 'LIFESCI'
L149       820 L64 AND L125

FILE 'BIOTECHDS'
L150        76 L65 AND L126

FILE 'BIOSIS'
L151      2147 L66 AND L127

FILE 'EMBASE'
L152      1674 L67 AND L128

FILE 'HCAPLUS'
L153      3052 L68 AND L129

FILE 'NTIS'
L154         4 L69 AND L130

FILE 'ESBIOBASE'
L155      1037 L70 AND L131

FILE 'BIOTECHNO'
L156       291 L71 AND L132

FILE 'WPIDS'
L157       192 L72 AND L133

TOTAL FOR ALL FILES
L158     13652 L73 AND L134

=> s l158 and l12
FILE 'MEDLINE'
L159        42 L147 AND L1

FILE 'SCISEARCH'
L160        19 L148 AND L2

FILE 'LIFESCI'
L161         8 L149 AND L3
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FILE 'BIOTECHDS'
L162        10 L150 AND L4

FILE 'BIOSIS'
L163        11 L151 AND L5

FILE 'EMBASE'
L164        14 L152 AND L6

FILE 'HCAPLUS'
L165        41 L153 AND L7

FILE 'NTIS'
L166         0 L154 AND L8

FILE 'ESBIOBASE'
L167         9 L155 AND L9

FILE 'BIOTECHNO'
L168         7 L156 AND L10

FILE 'WPIDS'
L169        12 L157 AND L11

TOTAL FOR ALL FILES
L170       173 L158 AND L12

=> s l170 not 2004-2008/py
FILE 'MEDLINE'
       3164820 2004-2008/PY
                 (20040000-20089999/PY)
L171        25 L159 NOT 2004-2008/PY

FILE 'SCISEARCH'
       5928866 2004-2008/PY
                 (20040000-20089999/PY)
L172        12 L160 NOT 2004-2008/PY

FILE 'LIFESCI'
        754837 2004-2008/PY
L173         3 L161 NOT 2004-2008/PY

FILE 'BIOTECHDS'
        117217 2004-2008/PY
L174         7 L162 NOT 2004-2008/PY

FILE 'BIOSIS'
       2726031 2004-2008/PY
L175         5 L163 NOT 2004-2008/PY

FILE 'EMBASE'
       2737448 2004-2008/PY
L176         8 L164 NOT 2004-2008/PY

FILE 'HCAPLUS'
       6404667 2004-2008/PY
L177        15 L165 NOT 2004-2008/PY

FILE 'NTIS'
         78657 2004-2008/PY
L178         0 L166 NOT 2004-2008/PY
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FILE 'ESBIOBASE'
       1562411 2004-2008/PY
L179         5 L167 NOT 2004-2008/PY

FILE 'BIOTECHNO'
           586 2004-2008/PY
L180         7 L168 NOT 2004-2008/PY

FILE 'WPIDS'
       5473730 2004-2008/PY
L181         5 L169 NOT 2004-2008/PY

TOTAL FOR ALL FILES
L182        92 L170 NOT 2004-2008/PY

=> dup rem l182
PROCESSING COMPLETED FOR L182
L183         54 DUP REM L182 (38 DUPLICATES REMOVED)

=> d tot

L183  ANSWER 1 OF 54  BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI    Pharmaceutical composition for modulating the activity of a
      heparin-binding growth factor (HBGF) by enhancing or inhibiting high
      affinity binding of the HBGF to its receptor, comprises a carrier and a
      CD44 isoform, e.g. CD44vRA;
         recombinant fusion protein for drug screening and
         gene therapy
AU    YAYON A; NEDVETZKI S; NAOR D; GOLAN I
AN    2003-11702  BIOTECHDS
PI    WO 2003014160 20 Feb 2003

L183  ANSWER 2 OF 54  BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI    New neuregulin-heparin binding domain nucleic acid, useful for treating
      cancer or nervous system disorders, or as query sequences in database
      searches in identifying other family members or related sequences;
         plasmid or virus vector-mediated gene transfer and expression in human
         cell for recombinant fusion protein production for
         use in disease gene therapy
AU    LOEB J A
AN    2003-12979  BIOTECHDS
PI    WO 2003012045 13 Feb 2003

L183 ANSWER 3 OF 54     MEDLINE on STN                  DUPLICATE 1
TI   The phosphatidylinositol-3 kinase (PI3K)-Akt pathway suppresses neurite
     branch formation in NGF-treated PC12 cells.
SO   Genes to cells : devoted to molecular & cellular mechanisms, (2003 Aug)
     Vol. 8, No. 8, pp. 657-69.
     Journal code: 9607379. ISSN: 1356-9597.
AU   Higuchi Maiko; Onishi Keisuke; Masuyama Norihisa; Gotoh Yukiko
AN   2003394146     MEDLINE

L183 ANSWER 4 OF 54     MEDLINE on STN
TI   Adeno-associated viral vector-mediated neurotrophin gene
     transfer in the injured adult rat spinal cord improves hind-limb function.
SO   Neuroscience, (2003) Vol. 118, No. 1, pp. 271-81.
     Journal code: 7605074. ISSN: 0306-4522.
AU   Blits B; Oudega M; Boer G J; Bartlett Bunge M; Verhaagen J
AN   2003160226     MEDLINE

L183 ANSWER 5 OF 54  HCAPLUS  COPYRIGHT 2008 ACS on STN
TI   Examining the mechanism of Erk nuclear translocation using green
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fluorescent protein
SO Experimental Cell Research (2003), 285(2), 208-220
CODEN: ECREAL; ISSN: 0014-4827
AU Horgan, Angela M.; Stork, Philip J. S.
AN 2003:293762 HCAPLUS
DN 139:174185

L183 ANSWER 6 OF 54 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI New snake venom zsnk1 polypeptide and polynucleotide, useful for decreasing blood pressure, causing vascular permeability, binding heparin and inducing proliferation or mitogenesis in cells;
recombinant vaccine production containing snake venom zsnk1 protein, useful for gene therapy, diagnosis and as a cell adhesive
AU SHEPPARD P O
AN 2002-11158 BIOTECHDS
PI WO 2002012334 14 Feb 2002

L183 ANSWER 7 OF 54 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI Isolated ankyrin repeat-rich membrane spanning (ARMS) polypeptide that is a target for phosphorylation by neurotrophin and ephrin receptor tyrosine kinases, useful as a marker for growth cones;
recombinant protein production useful for neuron growth visualization, imaging and diagnosis
AU CHAO M V; KONG H
AN 2002-18808 BIOTECHDS
PI WO 2002050273 27 Jun 2002

L183 ANSWER 8 OF 54 MEDLINE on STN
TI Identification of neurite outgrowth promoting sites on the laminin alpha 3 chain G domain.
SO Biochemistry, (2002 Sep 3) Vol. 41, No. 35, pp. 10747-53.
Journal code: 0370623. ISSN: 0006-2960.
AU Kato Kozue; Utani Atsushi; Suzuki Nobuharu; Mochizuki Mayumi; Yamada Masanori; Nishi Norio; Matsuura Hiroshi; Shinkai Hiroshi; Nomizu Motoyoshi
AN 2002438706 MEDLINE

L183 ANSWER 9 OF 54 MEDLINE on STN DUPLICATE 3
TI Delivery of hyper-interleukin-6 to the injured spinal cord increases neutrophil and macrophage infiltration and inhibits axonal growth.
SO The Journal of comparative neurology, (2002 Dec 16) Vol. 454, No. 3, pp. 213-28.
Journal code: 0406041. ISSN: 0021-9967.
AU Lacroix Steve; Chang Leon; Rose-John Stefan; Tuszynski Mark H
AN 2002681081 MEDLINE

L183 ANSWER 10 OF 54 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI New synthetic peptides mimicking beneficial trophic and neuritogenic effects of fibroblast growth factor, useful for stimulating neurite outgrowth and cell survival and treating prion disease and multiple sclerosis;
recombinant protein production in cell culture useful for neurite outgrowth stimulator, cell survival stimulator, angiogenesis modulator and gene therapy
AU SAFFELL J L
AN 2002-07511 BIOTECHDS
PI WO 2001096364 20 Dec 2001

L183 ANSWER 11 OF 54 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Complexes of the neurotrophic factor NNT-1, cytokine-like factor CLF-1 as ligands for α-type CNTF receptors and the use of the complexes in the treatment of neurodegenerative disease

SO PCT Int. Appl., 65 pp.
CODEN: PIXXD2
IN Elson, Greg; Gauchat, Jean-Francois; Plun-Favreau, Helene; Chevalier, Sylvie; Gascan, Hugues
AN 2001:565064 HCAPLUS
DN 135:147771

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001055172	A2	20010802	WO 2001-FR253	20010126
W: AU, BR, CA, CN, JP, MX, US, ZA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
FR 2804434	A1	20010803	FR 2000-1035	20000127
FR 2804435	A1	20010803	FR 2000-13089	20001012
AU 2001031917	A	20010807	AU 2001-31917	20010126

L183 ANSWER 12 OF 54 MEDLINE on STN
TI Binding of DCC by netrin-1 to mediate axon guidance independent of adenosine A2B receptor activation.
SO Science (New York, N.Y.), (2001 Mar 9) Vol. 291, No. 5510, pp. 1976-82.
Journal code: 0404511. ISSN: 0036-8075.
AU Stein E; Zou Y; Poo M; Tessier-Lavigne M
AN 2001160110 MEDLINE

L183 ANSWER 13 OF 54 MEDLINE on STN
TI Hierarchical organization of guidance receptors: silencing of netrin attraction by slit through a Robo/DCC receptor complex.
SO Science (New York, N.Y.), (2001 Mar 9) Vol. 291, No. 5510, pp. 1928-38.
Electronic Publication: 2001-02-08.
Journal code: 0404511. ISSN: 0036-8075.
AU Stein E; Tessier-Lavigne M
AN 2001160097 MEDLINE

L183 ANSWER 14 OF 54 MEDLINE on STN
TI Chemotropic responses of retinal growth cones mediated by rapid local protein synthesis and degradation.
SO Neuron, (2001 Dec 20) Vol. 32, No. 6, pp. 1013-26.
Journal code: 8809320. ISSN: 0896-6273.
AU Campbell D S; Holt C E
AN 2002045988 MEDLINE

L183 ANSWER 15 OF 54 MEDLINE on STN
TI CRYP-2/cPTPRO is a neurite inhibitory repulsive guidance cue for retinal neurons in vitro.
SO The Journal of cell biology, (2001 Aug 20) Vol. 154, No. 4, pp. 867-78.
Journal code: 0375356. ISSN: 0021-9525.
AU Stepanek L; Sun Q L; Wang J; Wang C; Bixby J L
AN 2001469590 MEDLINE

L183 ANSWER 16 OF 54 MEDLINE on STN
TI Regulation of neuronal traits by a novel transcriptional complex.
SO Neuron, (2001 Aug 16) Vol. 31, No. 3, pp. 353-65.
Journal code: 8809320. ISSN: 0896-6273.
AU Ballas N; Battaglioli E; Atouf F; Andres M E; Chenoweth J; Anderson M E; Burger C; Moniwa M; Davie J R; Bowers W J; Federoff H J; Rose D W; Rosenfeld M G; Brehm P; Mandel G
AN 2001472308 MEDLINE

L183 ANSWER 17 OF 54 EMBASE DUPLICATE 4
TI Expressing human matured brain-derived neurotrophic factor gene in E. Coli and determining its bioactivity.

SO Journal of Xi'an Medical University, English Edition, (2001) Vol. 13, No. 1, pp. 9-12.
Refs: 10
ISSN: 1000-923X CODEN: JXMUEC
AU Dongliang, M. (correspondence); Huimin, R.; Haitao, H.; Yong, L.; Guangxiao, Y.; Quanying, W.
AN 2001203440 EMBASE

L183 ANSWER 18 OF 54 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI New neuromodulator molecule comprising one component to suppress or neutralize neurite growth inhibitory effect of target, and second component capable of stimulating neurite growth and/or regeneration;
method is useful for producing drug screening for treating disease
AU Olson L; Fraidakis M
AN 2001-02123 BIOTECHDS
PI WO 2000064482 2 Nov 2000

L183 ANSWER 19 OF 54 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Coated substrates for blood, plasma, or tissue washing and columns equipped with these substrates
SO Ger. Offen., 30 pp.
CODEN: GWXXBX
IN Dunzendorfer, Udo; Will, Gottfried
AN 2000:275313 HCAPLUS
DN 132:313670

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19845286	A1	20000427	DE 1998-19845286	19981001
EP 1004598	A2	20000531	EP 1999-118541	19990918
EP 1004598	A3	20000607		

PI
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

L183 ANSWER 20 OF 54 WPIDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI Compound which can inhibit the biological activity of transforming growth factor (TGF)-beta on predamaged neurons, useful for treating cerebral disorders
PI WO 2000054804 A1 20000921 (200062)* EN 27[4]
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW
AU 2000010406 A 20001004 (200101) EN
IN KRIEGELSTEIN K

L183 ANSWER 21 OF 54 WPIDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI Protein gel containing mixture of peptides, useful e.g. for stimulating growth and extension of neurites
PI DE 20010297 U1 20000831 (200055)* DE 39[8]

L183 ANSWER 22 OF 54 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Neurofilaments are transported rapidly but intermittently in axons: Implications for slow axonal transport
SO JOURNAL OF NEUROSCIENCE, (15 SEP 2000) Vol. 20, No. 18, pp. 6849-6861.
ISSN: 0270-6474.
AU Roy S; Coffee P; Smith G; Liem R K H; Brady S T; Black M M (Reprint)
AN 2000:725702 SCISEARCH

L183 ANSWER 23 OF 54 MEDLINE on STN
TI Localization and targeting of SCG10 to the trans-Golgi apparatus and growth cone vesicles.
SO The European journal of neuroscience, (2000 Jul) Vol. 12, No. 7, pp. 2224-34.
Journal code: 8918110. ISSN: 0953-816X.
AU Lutjens R; Igarashi M; Pellier V; Blasey H; Di Paolo G; Ruchti E; Pfulg C; Staple J K; Catsicas S; Grenningloh G
AN 2000433346 MEDLINE

L183 ANSWER 24 OF 54 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Nerve growth factor-induced phosphorylation of SNAP-25 in PC12 cells: a possible involvement in the regulation of SNAP-25 localization
SO Journal of Neurochemistry (2000), 74(5), 2058-2066
CODEN: JONRA9; ISSN: 0022-3042
AU Kataoka, Masakazu; Kuwahara, Reiko; Iwasaki, Satoshi; Shoji-Kasai, Yoko; Takahashi, Masami
AN 2000:269886 HCAPLUS
DN 133:13124

L183 ANSWER 25 OF 54 MEDLINE on STN DUPLICATE 5
TI Intracelluar dynamics of a high affinity NGF receptor TrkA in PC12 cell.
SO Biological & pharmaceutical bulletin, (2000 Sep) Vol. 23, No. 9, pp. 1097-9.
Journal code: 9311984. ISSN: 0918-6158.
AU Hirashima N; Nishio M; Nakanishi M
AN 2000443123 MEDLINE

L183 ANSWER 26 OF 54 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Intracellular dynamics of a high affinity NGF receptor TrkA in PC12 cell.
SO Chemical and Pharmaceutical Bulletin (Tokyo), (September, 2000) Vol. 48, No. 9, pp. 1097-1099. print.
CODEN: CPBTAL. ISSN: 0009-2363.
AU Hirashima, Naohide [Reprint author]; Nishio, Masashi; Nakanishi, Mamoru
AN 2000:532198 BIOSIS

L183 ANSWER 27 OF 54 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Role of tetanus neurotoxin insensitive vesicle-associated membrane protein (TI-VAMP) in vesicular transport mediating neurite outgrowth
SO JOURNAL OF CELL BIOLOGY, (15 MAY 2000) Vol. 149, No. 4, pp. 889-899.
ISSN: 0021-9525.
AU Martinez-Arca S; Alberts P; Zahraoui A; Louvard D; Galli T (Reprint)
AN 2000:382121 SCISEARCH

L183 ANSWER 28 OF 54 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI SNAP-25 regulation during adrenal gland development: Comparison with differentiation markers and other SNAREs
SO JOURNAL OF COMPARATIVE NEUROLOGY, (12 JUN 2000) Vol. 421, No. 4, pp. 533-542.
ISSN: 0021-9967.
AU Hepp R; Grant N J; Aunis D; Langley K (Reprint)
AN 2000:347960 SCISEARCH

L183 ANSWER 29 OF 54 MEDLINE on STN DUPLICATE 6
TI Lesion-induced regulation of netrin receptors and modification of netrin-1 expression in the retina of fish and grafted rats.

SO Molecular and cellular neurosciences, (2000 Oct) Vol. 16, No. 4, pp. 350-64.
Journal code: 9100095. ISSN: 1044-7431.
AU Petrausch B; Jung M; Leppert C A; Stuermer C A
AN 2001142582 MEDLINE

L183 ANSWER 30 OF 54 LIFESCI COPYRIGHT 2008 CSA on STN DUPLICATE 7
TI Participation of Syntaxin 1A in Membrane Trafficking Involving Neurite Elongation and Membrane Expansion
SO Journal of Neuroscience Research [J. Neurosci. Res.], (20000801) vol. 61, no. 3, pp. 321-328.
ISSN: 0360-4012.
AU Zhou, Qiong; Xiao, Jingnan; Liu, Yuechueng*
AN 2000:105863 LIFESCI

L183 ANSWER 31 OF 54 HCAPLUS COPYRIGHT 2008 ACS on STN
TI rat Hnk-1 sulfotransferase cDNA sequence and therapeutic applications
SO PCT Int. Appl., 85 pp.
CODEN: PIXXD2
IN Mantei, Ned; Bakker, Hendrikus; Schachner, Melitta
AN 1999:189213 HCAPLUS
DN 130:233997

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9911796	A1	19990311	WO 1998-US18572	19980904
W: AU, CA, IL, JP, MX, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9893791	A	19990322	AU 1998-93791	19980904
EP 1012300	A1	20000628	EP 1998-946870	19980904
R: CH, DE, FR, GB, LI				
ZA 9808146	A	19990416	ZA 1998-8146	19980907

L183 ANSWER 32 OF 54 WPIDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI New isolated semaphorin receptor, neuropilin-2 - used to develop products for the diagnosis and treatment of neurological, immunological, oncological and viral diseases
PI WO 9904263 A1 19990128 (199911)* EN 87[6]
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW
AU 9884053 A 19990210 (199925) EN
US 6428965 B1 20020806 (200254) EN
IN GINTY D D; KOLODKIN A L

L183 ANSWER 33 OF 54 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Neurite outgrowth in PC12 cells. Distinguishing the roles of ubiquitylation and ubiquitin-dependent proteolysis.
SO Journal of Biological Chemistry, (April 23, 1999) Vol. 274, No. 17, pp. 11789-11795. print.
CODEN: JBCHA3. ISSN: 0021-9258.
AU Obin, Martin [Reprint author]; Mesco, Eugene; Gong, Xin; Haas, Arthur L.; Joseph, James; Taylor, Allen
AN 1999:257245 BIOSIS

L183 ANSWER 34 OF 54 MEDLINE on STN
TI Netrin-3, a mouse homolog of human NTN2L, is highly expressed in sensory ganglia and shows differential binding to netrin receptors.

SO The Journal of neuroscience : the official journal of the Society for Neuroscience, (1999 Jun 15) Vol. 19, No. 12, pp. 4938-47.
Journal code: 8102140. E-ISSN: 1529-2401.
AU Wang H; Copeland N G; Gilbert D J; Jenkins N A; Tessier-Lavigne M
AN 1999296863 MEDLINE

L183 ANSWER 35 OF 54 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 8
TI Neurite extension occurs in the absence of regulated exocytosis in PC12 subclones
SO MOLECULAR BIOLOGY OF THE CELL, (SEP 1999) Vol. 10, No. 9, pp. 2919-2931.
ISSN: 1059-1524.
AU Leoni C; Menegon A; Benfenati F; Toniolo D; Pennuto M; Valtorta F (Reprint)
AN 1999:707708 SCISEARCH

L183 ANSWER 36 OF 54 MEDLINE on STN
TI Evidence for collapsin-1 functioning in the control of neural crest migration in both trunk and hindbrain regions.
SO Development (Cambridge, England), (1999 May) Vol. 126, No. 10, pp. 2181-9.
Journal code: 8701744. ISSN: 0950-1991.
AU Eickholt B J; Mackenzie S L; Graham A; Walsh F S; Doherty P
AN 1999225465 MEDLINE

L183 ANSWER 37 OF 54 MEDLINE on STN
TI Adenoviral vector-mediated expression of a foreign gene in peripheral nerve tissue bridges implanted in the injured peripheral and central nervous system.
SO Experimental neurology, (1999 Nov) Vol. 160, No. 1, pp. 256-67.
Journal code: 0370712. ISSN: 0014-4886.
AU Blits B; Dijkhuizen P A; Carlstedt T P; Poldervaart H; Schiemanck S; Boer G J; Verhaagen J
AN 2000095674 MEDLINE

L183 ANSWER 38 OF 54 MEDLINE on STN
TI BDNF and NT4/5 promote survival and neurite outgrowth of pontocerebellar mossy fiber neurons.
SO Journal of neurobiology, (1999 Aug) Vol. 40, No. 2, pp. 254-69.
Journal code: 0213640. ISSN: 0022-3034.
AU Rabacchi S A; Kruk B; Hamilton J; Carney C; Hoffman J R; Meyer S L; Springer J E; Baird D H
AN 1999341992 MEDLINE

L183 ANSWER 39 OF 54 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Nerve growth factor modulates myelin-associated glycoprotein binding to sensory neurons
SO INTERNATIONAL JOURNAL OF DEVELOPMENTAL NEUROSCIENCE, (APR 1999) Vol. 17, No. 2, pp. 109-119.
ISSN: 0736-5748.
AU Turnley A M (Reprint); Bartlett P F
AN 1999:248353 SCISEARCH

L183 ANSWER 40 OF 54 MEDLINE on STN
TI Targeted expression of a multifunctional chimeric neurotrophin in the lesioned sciatic nerve accelerates regeneration of sensory and motor axons.
SO Proceedings of the National Academy of Sciences of the United States of America, (1998 Apr 28) Vol. 95, No. 9, pp. 5269-74.
Journal code: 7505876. ISSN: 0027-8424.
AU Funakoshi H; Risling M; Carlstedt T; Lendahl U; Timmusk T; Metsis M; Yamamoto Y; Ibanez C F

AN 1998226804 MEDLINE

L183 ANSWER 41 OF 54 MEDLINE on STN
TI Neuronal and non-neuronal collapsin-1 binding sites in developing chick are distinct from other semaphorin binding sites.
SO The Journal of neuroscience : the official journal of the Society for Neuroscience, (1997 Dec 1) Vol. 17, No. 23, pp. 9183-93.
Journal code: 8102140. ISSN: 0270-6474.
AU Takahashi T; Nakamura F; Strittmatter S M
AN 1998033358 MEDLINE

L183 ANSWER 42 OF 54 MEDLINE on STN DUPLICATE 9
TI Interference of BAD (Bcl-xL/Bcl-2-associated death promoter)-induced apoptosis in mammalian cells by 14-3-3 isoforms and P11.
SO Molecular endocrinology (Baltimore, Md.), (1997 Nov) Vol. 11, No. 12, pp. 1858-67.
Journal code: 8801431. ISSN: 0888-8809.
AU Hsu S Y; Kaipia A; Zhu L; Hsueh A J
AN 1998034386 MEDLINE

L183 ANSWER 43 OF 54 MEDLINE on STN
TI Molecular cloning and characterization of a transcription factor for the copia retrotransposon with homology to the BTB-containing lola neurogenic factor.
SO Molecular and cellular biology, (1997 Jan) Vol. 17, No. 1, pp. 482-94.
Journal code: 8109087. ISSN: 0270-7306.
AU Cavarec L; Jensen S; Casella J F; Cristescu S A; Heidmann T
AN 1997127405 MEDLINE

L183 ANSWER 44 OF 54 MEDLINE on STN
TI Structural features of collapsin required for biological activity and distribution of binding sites in the developing chick.
SO Molecular and cellular neurosciences, (1997) Vol. 9, No. 5-6, pp. 358-71.
Journal code: 9100095. ISSN: 1044-7431.
AU Eickholt B J; Morrow R; Walsh F S; Doherty P
AN 1998027180 MEDLINE

L183 ANSWER 45 OF 54 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI DNA encoding receptor tyrosine-kinase HER4; protein-tyrosine-kinase DNA probe, DNA primer, monoclonal antibody and chimeric toxin production for e.g. cancer diagnosis or therapy
AU Plowman G D; Shoyab M; Siegall C; Culouscou J M; Hellstrom I; Hellstrom K E
AN 1996-08056 BIOTECHDS
PI WO 9612019 25 Apr 1996

L183 ANSWER 46 OF 54 MEDLINE on STN DUPLICATE 10
TI Dentate granule cell layer collagen explant cultures: spontaneous axonal growth and induction by brain-derived neurotrophic factor or basic fibroblast growth factor.
SO Neuroscience, (1996 Oct) Vol. 74, No. 4, pp. 1197-208.
Journal code: 7605074. ISSN: 0306-4522.
AU Lowenstein D H; Arsenault L
AN 1997051147 MEDLINE

L183 ANSWER 47 OF 54 MEDLINE on STN DUPLICATE 11
TI Soluble myelin-associated glycoprotein-immunoglobulin G1 chimera protein promotes neurite outgrowth from mouse cerebellar neurons.
SO Neuroscience letters, (1996 Feb 23) Vol. 205, No. 2, pp. 87-90.
Journal code: 7600130. ISSN: 0304-3940.
AU Matsuda Y; Okitsu A; Sato S; Koito H; Yamamoto H
AN 1997063456 MEDLINE

L183 ANSWER 48 OF 54 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI THE CARBONIC-ANHYDRASE DOMAIN OF RECEPTOR TYROSINE PHOSPHATASE-BETA IS A FUNCTIONAL LIGAND FOR THE AXONAL CELL RECOGNITION MOLECULE CONTACTIN
SO CELL, (28 JUL 1995) Vol. 82, No. 2, pp. 251-260.
ISSN: 0092-8674.
AU PELES E (Reprint); NATIV M; CAMPBELL P L; SAKURAI T; MARTINEZ R; LEV S; CLARY D O; SCHILLING J; BARNEA G; PLOWMAN G D; GRUMET M; SCHLESSINGER J
AN 1995:497171 SCISEARCH

L183 ANSWER 49 OF 54 MEDLINE on STN
TI Maintaining the neuronal phenotype after injury in the adult CNS. Neurotrophic factors, axonal growth substrates, and gene therapy.
SO Molecular neurobiology, (1995 Apr-Jun) Vol. 10, No. 2-3, pp. 151-67. Ref: 107
Journal code: 8900963. ISSN: 0893-7648.
AU Tuszynski M H; Gage F H
AN 1996063033 MEDLINE

L183 ANSWER 50 OF 54 HCAPLUS COPYRIGHT 2008 ACS on STN
TI NGF/BDNF chimeric proteins: analysis of neurotrophin specificity by homolog-scanning mutagenesis
SO Journal of Neuroscience (1992), 12(1), 306-18
CODEN: JNRSDS; ISSN: 0270-6474
AU Suter, Ueli; Angst, Christof; Tien, Chia Lin; Drinkwater, Catherine C.; Lindsay, Ronald M.; Shooter, Eric M.
AN 1993:94494 HCAPLUS
DN 118:94494
OREF 118:16353a,16356a

L183 ANSWER 51 OF 54 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Neurotropic growth factors comprising a homeobox peptide and their use
SO PCT Int. Appl., 22 pp.
CODEN: PIXXD2
IN Joliot, Alain; Prochiantz, Alain
AN 1992:166268 HCAPLUS
DN 116:166268
OREF 116:27887a,27890a

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9118981	A2	19911212	WO 1991-FR444	19910605
	WO 9118981	A3	19920319		
	W: BR, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
	FR 2662698	A1	19911206	FR 1990-6912	19900605
	FR 2662698	B1	19950324		
	EP 485578	A1	19920520	EP 1991-910774	19910605
	EP 485578	B1	19961002		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	BR 9105783	A	19920721	BR 1991-5783	19910605
	JP 05502885	T	19930520	JP 1991-510353	19910605
	JP 3282130	B2	20020513		
	AT 143691	T	19961015	AT 1991-910774	19910605

L183 ANSWER 52 OF 54 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN
TI Production of the neuronal growth-associated protein GAP-43 in a bacterial expression system.
SO Brain Research, (1991) Vol. 565, No. 1, pp. 85-93.

ISSN: 0006-8993 CODEN: BRREAP
AU Schuh, S.M.; Spencer, S.; Willard, M.B. (correspondence)
AN 1991348316 EMBASE

L183 ANSWER 53 OF 54 WPIDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI Mammalian neuronal growth peptide GAP-43 and corresp. DNA - also new membrane targetting and internal regulatory peptide(s), useful e.g. for neuronal modelling and healing neural tissue damage
PI WO 9006948 A 19900628 (199029)* EN
RW: AT BE CH DE ES FR GB IT LU NL SE
W: AU JP KR
CA 2006496 A 19900622 (199036) EN
AU 9048419 A 19900710 (199039) EN
EP 407543 A 19910116 (199103) EN
R: AT BE CH DE ES FR GB IT LI LU NL SE
JP 03504017 W 19910905 (199142) JA
EP 407543 A4 19921014 (199523) EN
IN FISHMAN M C; STRITTMAT S M; VALENZUELA D; ZUBER M X

L183 ANSWER 54 OF 54 MEDLINE on STN DUPLICATE 12
TI The NGF-inducible SCG10 mRNA encodes a novel membrane-bound protein present in growth cones and abundant in developing neurons.
SO Neuron, (1988 Aug) Vol. 1, No. 6, pp. 463-76.
Journal code: 8809320. ISSN: 0896-6273.
AU Stein R; Mori N; Matthews K; Lo L C; Anderson D J
AN 1990166527 MEDLINE

=> d ab 10,11,18,21,38,40,46,49,50

L183 ANSWER 10 OF 54 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
AB DERWENT ABSTRACT:
NOVELTY - A synthetic peptide (I) which consists of or comprises a tetrameric peptide structural unit, and which mimics the beneficial trophic and neuritogenic effects of fibroblast growth factor (FGF), is new.
DETAILED DESCRIPTION - (I) consists of or comprises the tetrameric peptide structural unit Xaa-Xaa-Xaa-Xaa (S1), where: Xaa at position 1 = Glu or Asp; Xaa at position 2 = any amino acid; Xaa at position 3 = any amino acid; and Xaa at position 4 = Glu or Asp. INDEPENDENT CLAIMS are also included for the following: (1) a peptide (II) that: (a) consists of the amino acid sequence Pro-Tyr-Ser-Ser-Thr-Ala (S13) (a subsequence of the first fibronectin type III repeat of neuronal cell adhesion molecule (NCAM)); or (b) consists of three or more, especially four or five contiguous amino acids of (S13); or (c) comprises (S13) or three or more, especially four or five contiguous amino acids of (S13); (2) a peptide (III) that comprises all or part of fibronectin type III repeat of NCAM; (3) a pharmaceutical composition (IV) comprising (I)-(III) in admixture with a carrier; (4) a nucleic acid (V) encoding (I)-(III); (5) a host cell (VI) comprising (V) and elements necessary for the transcription and translation of nucleic acids; and (6) producing (I)-(III).
BIOTECHNOLOGY - Preparation: (I)-(II) is prepared by culturing (VI) under appropriate conditions such that the peptide is expressed. Preferred Peptide: (I) has an acyl substituent at the N-terminus and/or an amide group at the carboxy terminus. (I) comprises two cysteine residues that form a disulfide bond giving a cyclic peptide. The amino acids at positions 2 and 3 in (S1) are natural amino acids, non-natural amino acids, or modified amino acids. The amino acids at positions 2 and 3 in (S1) are selected from arginine, glycine, methionine and serine. (I) comprises the tetrameric structural unit of (S1) as part of a longer peptide molecule which is up to 30, 25, 20, 15 amino acid residues e.g., 10, 9, 8, 7, 6, 5 amino acid residues. (I) is or comprises the tetrameric

structural unit of (S1) and (S13) or its part. (I) which comprises (S1) as part of longer peptide molecule preferably has or comprises the sequence Asp-Arg-Val-Glu-Pro-Tyr-Ser-Ser-Thr-Ala (S14), Glu-Gly-Met-Glu-Gly-Met (S15), Asp-Arg-Ser-Glu-Pro-Tyr-Ser-Ser-Thr-Ala (S16), or Asp-Ala-Val-Glu-Pro-Tyr-Ser-Ser-Thr-Ala (S117), and the corresponding sequences having a cysteine residue at each terminus. (I) has the following structure: (a) peptide A: acetyl-Asp-Arg-Val-Glu-Pro-Tyr-Ser-Ser-Thr-Ala-amide; (b) peptide B: acetyl-Asp-Arg-Val-Glu-amide; (c) peptide C: acetyl-Glu-Gly-Met-Glu-amide; (d) peptide D: acetyl-Glu-Gly-Met-Glu-Gly-Met-amide; (e) peptide E: acetyl-Asp-Arg-Ser-Glu-Pro-Tyr-Ser-Ser-Thr-Ala-amide; or (f) peptide F: acetyl-Asp-Ala-Val-Glu-Pro-Tyr-Ser-Ser-Thr-Ala-amide. (III) consists of a part of a first fibronectin type III repeat of NCAM amino acid sequence that comprises the amino acid sequence Asp-Arg-Val-Glu or Pro-Tyr-Ser-Ser-Thr-Ala. (III) is: (a) a peptide consisting of or comprising the first fibronectin type III repeat of NCAM (databank entry GI:3334473); (b) a peptide consisting essentially of the first fibronectin type III repeat of NCAM or a peptide consisting essentially of or comprising a part of the first fibronectin type III repeat of NCAM; (c) a peptide of (a) or (b) with other sequences from NCAM, for example one or more other NCAM domains; or (d) a peptide of (a), (b), or (c) as part of a fusion protein with non-NCAM sequences, e.g., an NCAM-Fc fusion peptide. (I), (II) and (III) have one or more modifications such as an acyl group at the N-terminus, an amide group at the carboxy terminus and side chain modifications, and may be present in multimeric form, where the peptide and one or more further peptides ((I)-(III)) are linked together via a backbone structure which comprises one or more lysine residues (preferably, three lysine molecules). The peptides in multimeric form have the groups: (a) acetyl-Asp-Arg-Val-Glu-Pro-Tyr-Ser-Ser-Thr-Ala-(X)n; (b) acetyl-Asp-Arg-Val-Glu-(X)n; (c) acetyl-Glu-Gly-Met-Glu-(X)n-; (d) acetyl-Glu-Met-Gly-Glu-(X)n-; (e) acetyl-Asp-Arg-Ser-Glu-(X)n-; (f) acetyl-Asp-Ala-Val-Glu-(X)n-; (g) acetyl-Glu-Arg-Val-Asp-(X)n-; (h) acetyl-Glu-Gly-Gly-Glu-(X)n-; (i) acetyl-Glu-Gly-Met-Glu-Gly-Met-(X)n-; (j) acetyl-Asp-Arg-Ser-Glu-Pro-Tyr-Ser-Ser-Thr-Ala-(X)n-; or (k) acetyl-Asp-Ala-Val-Glu-Pro-Tyr-Ser-Ser-Thr-Ala-(X)n- linked to a backbone structure, where: X = linker group e.g. glycine-serine or its multiple; and n = integer of 1 or more e.g. 1, 2, 3. (I)-(III) having modifications or in multimeric form preferably have the following structure: peptide A(d):((Ac-Asp-Arg-Val-Glu-Pro-Tyr-Ser-Ser-Thr-Ala)2-K)2-K-OH, where: Ac = acyl group e.g. lower acyl group having 1-4 carbon atoms. All the peptides stated above can have their amino acid sequence reversed. Preferred Composition: (IV) is in a form suitable for application to a wound, or in a form suitable to enable the peptide to cross the blood-brain barrier, and a form suitable for oral or intravenous administration, or for topical administration.

ACTIVITY - Neuroprotective; nootropic; antiparkinsonian; antidiabetic; vulnerary; vasotropic; antitumor.

MECHANISM OF ACTION - Neurite outgrowth stimulator; cell survival stimulator; angiogenesis modulator; gene therapy; FGF inhibitor. The ability of the peptides to stimulate neurite outgrowth (axon regeneration) can be tested in a neurite outgrowth assay in vitro. Monolayers of NIH 3T3 fibroblasts were established by seeding 80000 cells per well previously coated sequentially with poly-L-lysine and fibronectin and culturing them overnight in Dulbecco's modified Eagle's medium (DMEM)+10% fetal calf serum (FCS) growth medium. Cerebellum was dissected from pot-natal day 2-4 rat pups and the meninges and extraneous tissue discarded. Cerebellum was chopped into small pieces and trypsinized for 10 minutes at 37 degrees C. Trypsin was neutralized using growth medium and the cells pelleted. Cerebellar neurons were then resuspended in SATO growth medium containing 2% FCS, counted, and plated

on top of the fibroblast monolayer at a density of 1500 neurons per well. Peptides A, A(d), B, C, D, E, and F were each incorporated in the SATO medium at a range of concentrations from 0-200 microgram/ml. Nerve growth factor (NGF) and FGF2 were used as controls at the same range of concentrations. After 16 hours, cocultures were fixed with 4% para-formaldehyde and stained. The mean neurite length of 150-200 neurons per well was determined using a fluorescent microscope and Zeiss KS300 imaging software. All of the peptides tested stimulated an 80-120% increase in neurite length (axon regeneration) of the rat cerebellar granule neurons cultured on monolayers of fibroblasts (NIB 3T3 cells). This response surpassed, the response of those neurons to NGF, and FGF in the same assay.

USE - (I)-(III) is useful for stimulating neurite outgrowth and cell (preferably, neuron, oligodendrocyte or fibroblast) survival in a mammalian subject, preferably a human subject. (I)-(III) is also useful for treating neurodegenerative disease such as motor neuron disease, multiple sclerosis, Alzheimer's disease, Parkinson's disease, progressive supranuclear palsy (PSP) or a prion disease in humans. (I)-(III) is also useful for treating peripheral neuropathy, e.g., diabetic neuropathy or chemotherapy-induced neuropathy; stimulating or restoring nerve function (preferably, local nerve function or paralysis caused by spinal cord injuries) after trauma or surgery in humans; stimulating angiogenesis in cardiac muscle; treating ischemia e.g., ischemia caused by stroke; inhibiting or reducing angiogenesis in a tumor in humans. (I)-(III) is used as a medicament for the above mentioned conditions, or for manufacturing the medicament for carrying out the above mentioned functions. (V) is useful for treating the above mentioned conditions by in vivo or ex vivo gene therapy. (V) is also useful for manufacturing a medicament for treating the above mentioned conditions by in vivo or ex vivo gene therapy, which is used in the above mentioned treatment methods (all claimed). (I)-(III) can be used for treating any pathological conditions for which FGF is used, and the peptides may also be used to promote wound healing. The peptides are also useful for inhibiting an undesirable effect of FGF by blocking FGF binding to its receptor without stimulating the receptor.

ADMINISTRATION - The peptides or nucleic acids encoding them are administered by intradermal, intramuscular, intraperitoneal, intravenous, subcutaneous, intranasal, epidural or oral route. Suitable dosages of peptides for intravenous administration range from 20-500 microgram/kg body weight. Suitable dosage of peptides for intranasal administration range from 0.01 pg-1 mg/kg body weight.

ADVANTAGE - (I)-(III) mimic the beneficial trophic and neuritogenic effects of FGF of high affinity receptor activation but lack the undesirable mitogenic and apoptotic effects of FGF. The peptides are less prone to proteolysis and therefore have a long life in blood, are cheap and easy to produce in quantity, stable and easy to store without changes in activity. Also the peptides do not stimulate mitogenesis.

EXAMPLE - Peptides were prepared by solid phase synthesis using standard Fmoc chemistry. To produce peptides having a C-terminal amide group, methylbenzhdrylamine was used and for peptides having a free (unblocked) carboxy terminus traditional Merrifield resins were used. Acetylation of the N-terminus for blocked peptides was performed by reacting the peptide resin with a solution of acetic anhydride in dichloromethane in the presence of diisopropylethylamine after removal of the N-alpha-t-butoxycarbonyl by acidolysis using trifluoroacetic acid. Peptide dendrimers (multiple antigenic peptides, MAP) were prepared by standard procedures. Cyclic peptides may be produced by synthesizing linear peptides synthesized as described above with a cysteine residue flanking each end of the peptide sequence. The cysteine was coupled first to the resin followed by the other amino acids and finally by a cysteine at the N-terminus. The product was then cyclized by reacting the two side

chain thiol groups with a 10% solution of iodine in methanol to form a disulfide bridge. (81 pages)

L183 ANSWER 11 OF 54 HCAPLUS COPYRIGHT 2008 ACS on STN
AB The invention concerns a novel isolated complex comprising a NNT-1 protein and in addition at least a CLF-1 protein and/or a sCNTFRα protein and antibodies specifically directed against said complex. The invention further comprises a composition comprising said complex as medicine for preventing and/or treating neurodegenerative diseases such as amyotrophic lateral sclerosis, Parkinson's disease or Huntington's disease, for maintaining muscle mass in paralyzed persons, for treating obesity or cancer. The complex of NNT-1 and CLF-1 is a novel ligand for the α subunit of the ciliary neurotrophic factor subunit that appears to be important for stimulating motor neuron development. The complex appears to be what has been sought for as ciliary neurotrophic factor 2. CDNAs for NNT-1 and CLF-1 were cloned by PCR and expressed to manufacture the proteins as fusion products with affinity labels. The proteins formed a complex in animal cells and although NNT-1 has a signal peptide, it is not secreted in the presence of intracellular CLF-1. The complex stimulated cellular proliferation of BAF/3 cells providing they expressed the gene for a gp130 CNTF receptor. Receptor binding of the complex stimulated tyrosine phosphorylation.

L183 ANSWER 18 OF 54 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
AB A new neuromodulator molecule (I) (an amphibody) is claimed. (I) contains two components separated from each other by a linker element to assume a functional conformation, in which the first component (C1) is capable of binding to and suppressing or neutralizing a neurite growth inhibitory effect of the target, (e.g. glial cell, a neuron, a fibroblast, a blood cell, etc.), and a second component (C2) (e.g. neutrophin NT-3) capable of stimulating neurite growth or regeneration. Also claimed are: producing (I) by recombinant DNA techniques; a vector (II) containing nucleic acids encoding (I); a cell (III) containing (II); and a pharmaceutical preparation containing (III) and preferably containing a suspension of such cells together with carrier, which is suitable for use in gene therapy. (I) is useful for producing a medicament for treating or preventing spinal cord injury, brain trauma, stroke, tumor of the central nervous system, etc. Different amphibodies to be used to peripheral nerve injuries, optic nerve injuries and spinal cord injuries. The amphibodies, force a non-permissive environment into a permissive and outgrowth promotive and chemoattractive one. (65pp)

L183 ANSWER 21 OF 54 WPIDS COPYRIGHT 2008 THOMSON REUTERS on STN
AB DE 20010297 U1 UPAB: 20060117
NOVELTY - A fibrin (or other protein) gel (A) that includes a mixture of peptides (B), crosslinked with the gel to stimulate extension of neurites, is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(a) a two-domain peptide (I) that includes a heparin-binding domain (HBD) and a second domain derived from a factor XIIIa substrate or a bioactive peptide;
(b) a protein gel to which (I) is crosslinked;
(c) fibrin that includes (I) or the HBD of antithrombin III (AT3);
(d) a cell matrix that contains the fibrin of (c);
(e) fibrin that includes an HBD which elutes from a heparin affinity column at sodium chloride concentration over 0.34 M;
(f) protein gel containing a chemically bound protease inhibitor;
(g) protein gel containing a peptide that has a protease binding site covalently incorporated into the gel;
(h) a three-dimensional matrix for promoting nerve cell extension

comprising a mixture of (B) each of which includes an HBD;

(i) a chimeric peptide (CP) comprising a C-terminal domain containing the HBD of AT3 and an N-terminal domain including an a2 plasmin inhibitor substrate for factor XIIIa; and

(j) fibrin gel with CP chemically crosslinked into it.

ACTIVITY - Neurotrophic.

The N-cadherin-derived peptide HAV was chemically crosslinked into a three-dimensional fibrin gel at 2 moles/mole fibrin. Eight day-old spinal ganglia were placed in the gel, neurites were allowed to grow for 48 hours, then the extension of neurites from the ganglia was assessed. Growth was 1.2 times greater than for ganglia placed in a gel without HAV. When the gel contained 2 moles/mole fibrin of each of IKVAV, RGD, YISGR and RNIAEIIKDI, neurite growth was increased by 75%, greater than expected from the effect of the peptides individually.

MECHANISM OF ACTION - None given.

USE - (A) are useful for supporting tissues and for cell incorporation or growth, especially for stimulating growth and extension of neurites.

ADVANTAGE - Many different types of cells can bind to, and grow on (A), or related gels or three-dimensional matrices containing them, and the three-dimensional structures significantly increase (sometimes synergistically) neurite growth and extension. The gels may also include a protease inhibitor to control the rate at which they degrade in vivo.

L183 ANSWER 38 OF 54 MEDLINE on STN

AB The neurotrophins nerve growth factor (NGF), brain-derived neurotrophic factor (BDNF), neurotrophin-3 (NT3), and NT4/5 are all found in the developing cerebellum. Granule cells, the major target neurons of mossy fibers, express BDNF during mossy fiber synaptogenesis. To determine whether neurotrophins contribute to the development of cerebellar afferent axons, we characterized the effects of neurotrophins on the growth of mossy fiber neurons from mice and rats in vitro. For a mossy fiber source, we used the basilar pontine nuclei (BPN), the major source of cerebellar mossy fibers in mammals. BDNF and NT4/5 increased BPN neuron survival, neurite outgrowth, growth cone size, and elongation rate, while neither NT3 nor NGF increased survival or outgrowth. In addition, BDNF and NT4/5 reduced the size of neurite bundles. Consistent with these effects, in situ hybridization on cultured basilar pontine neurons revealed the presence of mRNA encoding the TrkB receptor which binds both BDNF and NT4/5 with high affinity. We detected little or no message encoding the TrkC receptor which preferentially binds NT3. BDNF and NT4/5 also increased TrkB mRNA levels in BPN neurons. In addition to previously established functions as an autocrine/paracrine trophic factor for granule cells, the present results indicate that cerebellar BDNF may also act as a target-derived trophic factor for basilar pontine mossy fibers.

L183 ANSWER 40 OF 54 MEDLINE on STN

AB Peripheral nerve injury markedly regulates expression of neurotrophins and their receptors in the lesioned nerve. However, the role of endogenously produced neurotrophins in the process of nerve regeneration is unclear. Expression of a multifunctional neurotrophin, pan-neurotrophin-1 (PNT-1), was targeted to the peripheral nerves of transgenic mice by using a gene promoter that is specifically activated after nerve lesion but that is otherwise silent in all other tissues and during development. PNT-1 is a chimeric neurotrophin that combines the active sites of the

neurotrophins nerve growth factor, brain-derived neurotrophic factor, and neurotrophin-3 and binds and activates all known neurotrophin receptors. In adult transgenic mice, PNT-1 was highly expressed in transected but not in intact sciatic nerve. Morphometric analyses at the electron microscopy level showed increased and accelerated recovery of axon diameter of myelinated fibers in crushed peripheral nerves of transgenic mice compared with wild type. Examination of nerve bundles in target tissues indicated accelerated reinnervation of foot pad dermis and flexor plantaris muscle in transgenic mice. Moreover, transected sensory and motor axons of transgenic mice showed faster and increased return of neurophysiological responses, suggesting an accelerated rate of axonal elongation. Importantly, transgenic mice also showed a markedly ameliorated loss of skeletal muscle weight, indicating functional regeneration of motor axons. Together, these data provide evidence, at both the anatomical and functional levels, that neurotrophins endogenously produced by the lesioned nerve are capable of significantly accelerating the regeneration of both sensory and motor axons after peripheral nerve damage. In addition, our results indicate that exogenous PNT-1 administration may be an effective therapeutic treatment of peripheral nerve injuries.

L183 ANSWER 46 OF 54 MEDLINE on STN DUPLICATE 10

AB The molecular mechanisms that underlie dentate granule cell axon (i.e., mossy fiber) growth during development and following seizure-induced hippocampal injury remain unknown. Part of this process may involve specific factors that support dentate granule cells during differentiation, and molecular cues that allow the appropriate growth of mossy fiber axons toward their targets. To study this process, we developed an in vitro assay system to measure the activity of putative trophic, chemoattractant and chemorepulsive factors. Two-hundred-micrometer-thick transverse hippocampal sections were prepared from neonatal rats and microdissected to isolate the middle one-third of the superior blade of the dentate granule cell layer. These were embedded in a three-dimensional collagen matrix either alone or with microdissected regions of the CA2 pyramidal cell layer. Cultures were maintained in a defined medium and grown for two to three days in a standard culture environment. Results showed that numerous processes grew primarily from the hilar side of explants into the collagen matrix, often in excess of 500 microns in length. These were determined to be axons based on: (i) morphological criteria including size and presence of growth cones, (ii) synaptophysin and growth-associated protein-43 immunoreactivity, (iii) lack of glial fibrillary acidic protein immunoreactivity and (iv) contiguity of biocytin-filled processes with neuronal soma within the explant. Treatment of cultures with brain-derived neurotrophic factor caused a significant increase in axon number and length, and this effect was partially reversed by the addition of a trkB-immunoglobulin fusion protein that blocks the activity of brain-derived neurotrophic factor and neurotrophin-4/5. Basic fibroblast growth factor also caused a marked increase in axon number and length, and caused a migration of neuron-like cells out of the explant into the collagen. These results show that cultured dentate granule cell layer explants are capable of growing mossy fibers into a neutral collagen matrix, and the growth of axons can be modified by the addition of exogenous growth factors. Furthermore, since target tissue and point sources of purified factors can easily be co-cultured with the explants, this new system provides a direct means for testing the molecular cues that influence mossy fiber growth.

L183 ANSWER 49 OF 54 MEDLINE on STN

AB Multiple genetic and epigenetic events determine neuronal phenotype during nervous system development. After the mature mammalian neuronal phenotype

has been determined it is usually static for the remainder of life, unless an injury or degenerative event occurs. Injured neurons may suffer one of three potential fates: death, persistent atrophy, or recovery. The ability of an injured adult neuron to recover from injury in adulthood may be determined by events that also influence neuronal phenotype during development, including expression of growth-related genes and responsiveness to survival and growth signals in the environment. The latter signals include neurotrophic factors and substrate molecules that promote neurite growth. Several adult CNS regions exhibit neurotrophic-factor responsiveness, including the basal forebrain, entorhinal cortex, hippocampus, thalamus, brainstem, and spinal cord. The specificity of neurotrophic -factor responsiveness in these regions parallels patterns observed during development. In addition, neurons of several CNS regions extend neurites after injury when presented with growth-promoting substrates. When both neurotrophic factors and growth-promoting substrates are provided to adult rats that have undergone bilateral fimbria-fornix lesions, then partial morphological and behavioral recovery can be induced. Gene therapy is one useful tool for providing these substances. Thus, the mature CNS remains robustly responsive to signals that shape nervous system development, and is highly plastic when stimulated by appropriate cues.

L183 ANSWER 50 OF 54 HCAPLUS COPYRIGHT 2008 ACS on STN
AB Despite their extensive sequence identities at the amino acid level (.apprx.55%), NGF and brain-derived neurotrophic factor (BDNF) display distinct neuronal specificity toward neurons of both the peripheral (PNS) and central nervous system (and CNS). To explore which region(s) within these neurotrophic factors might determine their differential actions on various subpopulations of peripheral neurons, a systematic series (homolog-scanning mutagenesis) of chimeric NGF/BDNF mols. was prepared using PCR overlap-extension techniques. After expression in COS-7 cells, the chimeric proteins were tested for their biol. activities in neurite outgrowth and neuronal survival assays. This approach led to the functional expression of 12 NGF/BDNF chimeras. Surprisingly, despite replacing successive amino acid segments throughout the entire length of NGF with the corresponding parts of BDNF, all chimeras displayed full NGF-like activity in bioassays carried out with PC12 cells, embryonic chick dorsal root ganglion explants, sympathetic ganglion explants, and dissociated cultures of dorsal root ganglion neurons. Most of the chimeras addnl. showed BDNF-like activity as defined by neurite outgrowth on chick nodose ganglion explants. However, none of the chimeras supported the survival of dissociated nodose ganglion neurons. These results suggest that NGF and BDNF must share very similar higher-order protein structures, and the overall structure or conformation of NGF, in contrast to short amino acid active-site segments, may determine its exact neuronal specificity.

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